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Displaced human skeletal remains in predynastic period

Sarah Marei

The American University in Cairo
School of Humanities and Social Science

Displaced Human Skeletal Remains in the Predynastic Period

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By: **Sarah Marei**

Under the supervision of **Dr. Lisa Sabbahy** & **Dr. Salima Ikram**

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Dedication

This thesis is dedicated to my father, who gave me several lifetimes worth of love, inspiration and faith.

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Abstract

Numerous burials dating to the Predynastic Period have been documented as containing bodies that appear to have been deliberately manipulated in a variety of ways. Among the practices noted is a deliberate rearrangement of skeletons. To date, these burials have received little scholarly attention and are most frequently attributed to looting or post-depositional disturbance, despite the evidence potentially pointing to an ancient and discontinued funerary ritual. Recent discoveries made in Predynastic cemeteries have revealed additional cases that reaffirm the presence of peculiar funerary practices taking place during that period.

This thesis examines burials from the Predynastic cemeteries of Naqada, Gerza, Adaima and Tell El Farkha, presenting and analyzing evidence for deliberately displaced skeletal remains, in order to establish underlying patterns and to understand their significance. The burials are investigated through an interpretative approach, placing them within their historical, social and religious contexts. The evidence offers the possibility of elucidating a complex and dynamic mortuary culture that was practiced in the Predynastic Period.

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1. Introduction

A number of burials dating to the Predynastic Period (c. 4400-3000 BC) contain bodies that were subjected to various treatments, which indicate that they may have been manipulated in diverse burial rituals. The evidence suggests that bodies and skeletons were sometimes deliberately fragmented or anatomically rearranged within the tomb. The reason behind these actions is not certain and is interpreted differently by various scholars who speculate that these burials may present evidence for a form of punishment of the deceased, are human sacrifices, are part of an early burial ritual, belong to victims of violent death, are a result of looting, or are a result of a ritual associated with the god Osiris (Crubezy, Janin, and Midant-Reynes 2002, 483; Dougherty and Friedman 2008, 320; Maish 2003, 26; Friedman 2002, 10; Bonnet 1971, 421–422; Griffiths 1980, 51; Ikram 2003, 50–51). This study identifies burials with skeletons that were intentionally rearranged within their graves and explores the potential significance of such a practice during the Predynastic Period, at the sites of Naqada, Gerza, Adaima and Tell El Farkha.

The absence of written language and paucity of information about the religious doctrine of the time makes these unusual practices very difficult to explain. The fact that burial goods are interred with most individuals suggests that a belief in an afterlife, where personal items were needed, existed during this time (Ikram 2003, 23). Hunting and triumphant scenes found in some tombs, such as Tomb 100 at Hierakonpolis, indicates that the practice of immortalizing significant events by placing them in the tomb, originated during this period

(Hendrickx 2011, 77). While little is known about the belief system present during this time, it may be deduced that a belief in an afterlife already existed. Some scholars speculate that the diverse treatments of the body during this period reflects the emergence of increasingly complex mortuary practices that sought to commemorate the deceased (Wengrow and Baines 2004; Wengrow 2009, 116-123).

Majority of Predynastic Burials

The Predynastic Period (c. 4400-3000 BC) is recognized as a time where a remarkable acceleration is observable in the development of urbanization, social stratification, material culture, social complexity and geographical expansion leading to the unification of Egypt and the rise of the Pharaonic state[1] (Andelkovic 2011, 27). Due to the scarcity of excavated settlements from this period, mortuary remains predominate in the archaeological record, and form the basis of information on these nascent cultures. Tomb development and changes in burial practices during this period demonstrate the growing complexity of mortuary practices, reflecting changes in socio-economic hierarchies, belief systems, and culture. One significant, if not the most significant, feature of the burial that has been pointed out, and is the focus of

[1] Scholars have divided the Predynastic Period into the following eras, with parallel but different cultures existing in Upper and Lower Egypt at the same time: Badarian (c. 4400-4000 B.C), Maadi (c. 4000-3200 B.C), Naqada I (c. 4000-3500 B.C.), Naqada II (c. 3500-3200 B.C.) and Naqada III Periods (c. 3200-3000 B.C). The Naqada Periods are further divided into four subdivisions a, b, c and d as it is impossible to draw clear distinctions between these different eras. The chronology adopted herein follows Shaw 2000.

many discussions, is the diverse treatment of the body (Wengrow and Baines 2004; Wengrow 2009, 116-123).

The majority of burials throughout the Naqada I, II and III Periods were single interments with the body placed in a fetal position and the hands positioned near the face (Fig. 1) (Midant-Reynes 2000, 153). Some bodies were wrapped in reed mats, animal skin and linen clothing, while others were interred in clay and wood coffins (Midant-Reynes 2000, 153, 170). Burials from the Naqada II Period onwards contain objects clustered around the body. Wavy handled jars are frequently placed above the head, large storage jars below the feet and smaller items, such as palettes and cosmetic stone vessels near the head and hands of the deceased (Stevenson 2009c, 5; Petrie and Quibell 1896, 1:19).

Fig. 1 Drawing of skeleton in fetal position

Anomalous Predynastic Burials

Some skeletons, however, show evidence for being manipulated in different ways: decapitation; dismemberment; removal and burial of singular elements; such as skulls; scalping; rearrangement of skeletal remains; traces of an undefined activity that left cut marks on the head and neck (Dougherty and

Friedman 2008, 309, 324–325, 329, 482; Dougherty 2010, 7; Crubezy, Janin, and Midant-Reynes 2002, 456, 476, 480-483; Debowska-Ludwin 2010a). These diverse treatments seem at odds with the long-lived ancient Egyptian tradition of preserving the body for death (Ikram 2003, 23). It is these burials that are the focus of this thesis[2].

The skeletons in such burials were found with some, or all, bones rearranged within the grave and sometimes with absent skeletal elements. In burials where some or most of the skeleton is found intact, in anatomical alignment, the affected parts of the skeleton appear in profound contrast to the otherwise perfect state of the skeleton. The actions guiding the altering or removing of bones appear in many cases to have been careful enough not to disturb the rest of the skeleton or the burial goods. The manipulation of the skeletons in these graves includes examples where the bones of a skeleton were deliberately rearranged in an enigmatic pattern, piled on one side of the grave, or with some bones, such as the phalanges, or fingers and toes, or vertebrae, scattered around the body. Other burials exhibit instances where some bones were placed inside vessels or where objects were found replacing absent or moved bones. Sometimes the skull was afforded special treatments, including its placement on one side of the burial, its positioning over a brick or stone, laid over the body, removed from the burial, or buried alone in an isolated grave.

[2] Among the uncommon burial practices present during this time period were a few rare examples of bodies that were wrapped in strips of resin-soaked linen, which today are considered the earliest experimentation with embalming. These cases, however, are rare, and are not discussed here, as they do not involve disarticulated bodies (Crubezy, Janin, and Midant-Reynes 2002; Friedman 1998; Friedman 1997; Dougherty and Friedman 2008; Jones et al. 2014).

Taphonomy

One of the problems with identifying displaced burials is the issue of taphonomy. Taphonomy is the study of the natural and human interventions on archaeological contexts after their deposition (Fagan 2001, 110–111). The movement of bones in a burial can be attributed to a number of factors. These include natural taphonomic elements, such as animal, insect and plant activity, erosion, water damage, earthquakes and floods and gravity (Fagan 2001, 111). In these cases, the smaller bones, particularly of hands and feet can move, and in some cases be washed or carried away entirely.

There are also natural changes or movement in skeletal alignment due to decomposition (Haglund and Sorg 1997, 77; Duday and Masset 1985; Duday 1978, 61–62; Duday 1985, 10; Duday 2006, 33–45; Roksandic 2002, 103; Sellier 1985; Boddington and Janaway 1987). As the body decomposes, some bones may become disarticulated or shifted out of position with the loss of soft tissue (Duday 2006, 34-35). For example, the collapse of the rib cage leads to the displacement of the ribs and sternum. When the body is in certain positions, the collapse of the pelvic girdle may cause the migration of the sacrum (Duday 2006, 34-35). The movement of the bones in all cases depends on the initial position of the body and on gravity (Duday 2006, 35). The position in which the body was originally placed could also lead to the movement of bones. If the hands, for example, were placed on the abdomen, the bones of the fingers and hands will be found displaced in the pelvic area (Roksandic 2002, 103, 104; Duday 1978, 97). If a body was placed in a seated position, the bones will shift considerably during the process of decomposition (Ambroise and Perlès 1972). Generally, bodies that are placed in stable environments and on even surfaces will shift less as the body

decomposes. However, those in unstable environments and on uneven surfaces will result in the movement of the bones based on gravity and the architecture of the burial space (Roksandic 2002, 104). In cases where the loss of soft tissue is replaced with sediment, bones will most likely be found in place (Duday 1985, 6). A body that is buried in an enclosed, empty space is more likely to move during the process of decomposition than one that is covered with sediment (Roksandic 2002, 103; Duday 2006, 40). If an empty space is created around a body with the loss of the soft tissue, some bones could be expected to move within the initial volume of the body (Roksandic 2002, 106; Duday 2006, 34–45). Reconstructing the original position of the body and determining the natural movement of the bones during decomposition is, therefore, crucial in deciphering the patterns of a burial and determining whether it was a secondary or primary interment, or whether it has been deliberately manipulated in some way.

Deliberate Movement of Bones

Subsequent human activity, other than looting, is also responsible for changes in skeletal alignment (Haglund and Sorg 1997, 77), and this is the focus of this thesis. Human activity and burial customs motivated by ritual practices can leave traces in archaeological contexts (Duday and Masset 1987; Boddington and Janaway 1987). In a primary interment, that is stable and protected from animal and natural activities, the skeleton will be found with all the bones in proper anatomical position (Duday 2006, 33). Identifying a primary burial is, therefore, based on the presence of all, or most, bones and the observation of articulation in the skeleton (Andrews and Bello 2006, 17). The criteria often used to determine a secondary burial is the rearrangement of bones, absence of bones

or body parts and the presence of cut marks (Duday 2006, 46). Those elements have to, however, be considered alongside the possibility of the natural movemement of some bones and the taphonomy of the archaeological context (Duday 2006, 46). Determining whether an altered skeleton was caused by natural agents or deliberate human activity is based on the study of the burial and the interpretation of the evidence (Andrews and Bello 2006, 22). Ritual activities are strongly suspected in instances where skulls are absent from a burial, or separately inhumed (Roksandic 2002, 110; Sellier 1985). Other examples include the gathering of ribs or long bones, grouping of skulls or the scattering of vertebrae within a burial (Roksandic 2002, 112; Duday 2006, 46). Absent bones that were retrieved from the burial for circulation in the community have been documented in a number of archaeological contexts, such as in Prehistoric sites in Great Britain, Turkey and the Levant (see below under 'Cultural Parallels', and also Fowler 2010, 8,9; Bruck 2006, 81–82; Talalay 2002, 11), and may provide an explanation for the absence of some bones from Egyptian graves (Sauzade and Duday 1984; Duday et al. 1990).

Terminology

Scholars use varying terminology when referring to skeletons or bodies with manipulated remains. This can result in the misrepresentation or misunderstanding of the evidence, as often these terms are not defined, and one scholar uses a term to mean something, and another scholar uses the same term to mean something quite different. Diverse examples of manipulated human remains caused by various activities are collectively referred to as ‘dismembered’ (Petrie and Quibell 1896, 1:32; Petrie, Wainwright, and MacKay 1912, 10;

Debowska-Ludwin 2010a, 374; Randall-MacIver and Mace 1902, 7; Assmann 1989, 138; Assmann 2005, 34) or 'disordered' (Debowska-Ludwin 2010a, 374), or 'mutilated' (Petrie, Wainwright, and MacKay 1912, 8; Debowska-Ludwin 2014, 111), with no clear differentiation between the use of these terms or an explanation of what they denote. The causes for the alterations in the burials also have different interpretations, which are also not discussed by those presenting the evidence, and often scholars do not differentiate between the causality: bodies or corpses were dried and then pulled apart (Crubezy, Janin, and Midant-Reynes 2002, 306; Wengrow 2009, 118, 122), bodies were partially decomposed when buried (Debowska-Ludwin 2010a, 374; Griffiths 1980, 51), or skeletons were manipulated within the burial after decomposition (Debowska-Ludwin 2014, 111; Randall-MacIver and Mace 1902, 27). All of these burial activities were present during the Predynastic Period, as evidence has shown (Dougherty and Friedman 2008, 309, 324–325, 329, 482; Dougherty 2010, 7; Crubezy, Janin, and Midant-Reynes 2002, 456, 476, 480-483; Debowska-Ludwin 2010a). However, collectively referring to all cases using a single term or explanation obscures the evidence. Thus, the following terms will be used in this thesis.

'Primary context' is an archaeological context that has been unaffected by natural or human activity. A 'secondary context' is one where subsequent human or natural activity has affected the archaeological remains (Fagan 2001, 111). All the burials investigated here are considered secondary contexts, with the focus being on those that clearly have been affected by human intervention. Thus, a 'Primary interment or burial' refers to the initial and only space a body was placed in (Andrews and Bello 2006, 17). It is the space where the entire process of decomposition took place (Duday 2006, 33). Differentiating a primary

interment from a secondary interment is based on the presence of anatomical articulation in the skeleton (Duday 2006, 33). In a primary interment, most if not all the articulation of the bones will be preserved given that the body decomposed in an enclosed and stable space (Duday 2006, 33; Andrews and Bello 2006, 17).

'Secondary interment or burial' is the process of moving a body or a skeleton, or parts of it, from a temporary or primary resting place to another burial (Andrews and Bello 2006, 17). It also defines the instances when a delay occurs between death and burial, which may happen when someone dies far from their community or as part of a funerary ritual that intentionally awaits the decomposition of the body to remove its flesh through exposure or prolonged burial rites (Andrews and Bello 2006, 17). 'Secondary burial' also describes instances where a burial was re-opened and parts of the skeleton or body were moved or removed, such as the cranium (or any other part of the body) (Andrews and Bello 2006, 17; Duday 2006, 49), which form the basis for this thesis. The parts removed may be retained by the community as relics or reburied elsewhere (Duday 2006, 49).

A 'Disturbed burial' is recognized here as a burial where human remains were moved or altered as the result of a later activity that unintentionally caused the rearrangement of the body (Andrews and Bello 2006, 17). The difference between a secondary and disturbed burial is in the intention of the activity affecting the body, "In a secondary activity, a body is disturbed as a result of human action directed at that particular individual; in disturbed burials, later human disturbance is incidental to the individual being disturbed, the intention

being directed at some other event, such as another burial in the same grave" (Andrews and Bello 2006, 17).

'Secondary Burial Tradition' is an anthropological term coined by Robert Hertz (1960) to describe funerary rituals where secondary interments are a part of their mortuary traditions. The rituals are composed of "…two essential stages between which a length of time elapses, and where the body is moved or altered during both stages" (Chenier 2009, 27). A wide array of burial practices fit under this definition, including cremation, cannibalism, temporary burial, platform burials, embalming and disarticulation (Chenier 2009, 27). The burial rites for the deceased are not considered complete until this final, secondary stage. The term has been adapted, altered and expanded in anthropological and archaeological literature to the point where the parameters of the definition are now blurred, and is found applied in a variety of contexts, each using the term to mean something different (Chenier 2009, 28; Debowska-Ludwin 2010a, 375; Crubezy, Janin, and Midant-Reynes 2002, 93; Fowler 2010, 2; Larsson 2003). Due to its weakened theoretical and conceptual parameters, the term "secondary burial tradition" will be avoided in this study, and will only be referred to when citing a text that uses it to accommodate the meaning the authors wish to convey.

The term 'manipulation' is used in this study to refer to any of the diverse treatments that were conducted on a body or skeleton and which is observable on the human remains. This includes cut marks, decapitation, dismemberment of a corpse and the rearrangement of bones in a skeleton. 'Dismemberment' refers to the cutting up, severing or pulling apart of a corpse or naturally mummified body. It differs from the practice of skeletal displacement in that the actions are

conducted on a body and, therefore, some bone articulation will still be present. If entire limbs or parts of a corpse were cut up and separated, then it is expected to find those body parts anatomically aligned but separate from the rest of the body, such as an arm or leg with all its constituent bones. An example of this is found in burial S162 at Adaima where a naturally mummified corpse was pulled apart (Crubezy, Janin, and Midant-Reynes 2002, 479). The bones of the skull (cranium and mandible) and some other bones (femur and pelvis) were articulated, but isolated from the rest of the body (Crubezy, Janin, and Midant-Reynes 2002, 479), and the absence of cut marks led the excavators to conclude that a dried corpse was deliberately pulled apart (Crubezy, Janin, and Midant-Reynes 2002, 479). Similarily, burial B113 at Naqada was described as the limbs were found separated from the body (Petrie and Quibell 1896, 1:24). When a limb, or part of the body, is separated from the rest of the body, it indicates that a body and not a skeleton was dismembered.

The term 'skeletal displacement' will be used to refer to the burials that were affected with the deliberate movement or removal of some or all bones from a skeleton after decomposition. This may be caused by moving a skeleton from its primary interment to a secondary one, resulting in the loss or movement of bones; or by re-opening a burial where the body had desiccated into a skeleton and manipulating the bones within the grave, thus some bones can be moved away from the skeleton and piled up within the grave.

'Anatomical relationship' is used to describe the natural anatomical articulation of bones in a skeleton. 'Articulation' is the term used to describe the bones of a skeleton in their proper anatomical alignment 'conform[ing] to the

architecture of the human skeleton' (Duday 2006, 33). 'Disarticulation' refers to the natural process of the breakdown of connective tissue in a body during decomposition. 'Deliberate disarticulation' by contrast, is the alteration of the bones of the skeleton by human activity. Finally, 'bone circulation' is a term that is used to describe the retrieval of bones from burials in some cultures to be retained and circulated within the community. It is believed that this practice was carried out in an effort for the living to maintain ties with the dead (Fowler 2010, 13; Triantaphyllou 2008, 151; Bruck 2006, 82).

Previous Scholarship on Displaced Skeletal Remains

Since the late 19th Century, excavators have recorded evidence of anomalous burials of the Predynastic Period that defy any explanation of looting or disturbance (Petrie and Quibell 1896, 15; Petrie, Wainwright, and MacKay 1912, 8; Peet 1914, 14; Randall-MacIver and Mace 1902, 7). Initially, scholars interpreted these graves as possibly resulting from an unknown funerary ritual (Petrie and Quibell 1896, 1:31–32; Petrie, Wainwright, and MacKay 1912, 8–15; Hermann 1956, 34; Anthes 1963). Interest in the subject of early and unusual funerary rituals was revived with new evidence that was found in the ongoing excavations taking place at the sites of Adaima, Tell El Farkha and Hierakonpolis (Crubezy, Janin, and Midant-Reynes 2002, 479; Debowska-Ludwin 2010a; Friedman 2002, 10). Excavations at these sites have revealed a multitude of practices affecting some of the individuals in the cemeteries. The new evidence suggests that these practices could be the result of early funerary rituals. William. M.F. Petrie and James Quibell were the first to record evidence of burials with manipulated skeletons while excavating at the site of Naqada in the late 19th

Century. A total of about 2,200 burials dating from Naqada I to the Early Dynastic Period, were excavated and published in *Naqada and Ballas* (1896). Naqada marked the first encounter of archaeologists with Predynastic material remains. Archaeologists at that time were accustomed to excavating burials with mummified individuals, elaborately decorated coffins and sarcophagi, and a wealth of ornate burial goods. The Predynastic burials first discovered at Naqada were drastically sparse by comparison. This unparalleled evidence, misled the excavators into believing that these burials belonged to an invading race, which temporarily settled in Egypt (Petrie and Quibell 1896, 1:18). The "un-Egyptian" characteristics that made Petrie suspect that the burials belonged to an invading race were the fact that the bodies were placed in a contracted position, the crudity of the pottery and the small size of the grave that left little space for the body and grave goods (Petrie and Quibell 1896, 1:8–9). Despite the fact that Petrie was searching for evidence of the earliest dynasties in Egypt, he initially insisted that these burials belonged to an invading race. Five years later, after the discovery of additional Predynastic burials, Petrie revised his opinion and stated that the graves at Naqada belonged to the Predynastic Period (Spencer 2001, 19).

Petrie was convinced that in some burials at Naqada, the bones had been deliberately manipulated rather than disturbed by looters (Petrie and Quibell 1896, 1:ii, ix). Petrie's puzzlement at the excavated evidence led him to thoroughly and precisely record the details of the burials and the state of the skeleton in order to accurately relay these unique finds. Strict rules were applied and outlined in the publication about the excavation of the skeletons to authenticate the accuracy of their unusual nature (Petrie and Quibell 1896, 1:vii). Graves with uncommon characteristics, such as rearranged bones, were

prioritized in the publication, while burials deemed 'normal' were hardly mentioned. Petrie states,

> "These details will, I hope, give sufficient confidence in the general accuracy of the results noted. No doubt errors might creep in, but probably more from misunderstanding the evidence than from inaccuracies of detail" (Petrie and Quibell 1896, 1:ix).

Time proved his statement correct, and the evidence presented in his publication is still fundamental in the study of the Predynastic Period. However, not all of his interpretations were accurate. Based on the bones discovered in burial T5, where Petrie observed absent bone marrow and gnawing marks, he dramatically concludes, "After these instances we must conclude that bodies were sometimes – with all respect – cut up and partly eaten" (Petrie and Quibell 1896, 1:32). This example has been refuted as more likely presenting evidence for a body that was exposed prior to burial and attacked by animals (Davis 1983).

In 1911, sixteen years after the discovery of Naqada, similar burials were discovered in the excavation at Gerza. W.M.F. Petrie, G. Wainwright and E. MacKay (1912) undertook the excavation of the site. By that point, the existence of the Predynastic Period had been established and was integral to Petrie's creation of the Sequence Dating System, which chronologically identified the different phases of ancient Egyptian prehistory based on the development of pottery and grave goods (Petrie 1899). Around 280 burials were excavated from a single cemetery at Gerza dating mostly to the Naqada Period, 12 of which were identified by the excavators as containing rearranged skeletal remains (Petrie, Wainwright, and MacKay 1912, 5).

In attempting to interpret these burials, Wainwright suggested a possible link between these burials and the Myth of Osiris (Petrie, Wainwright, and MacKay 1912, 8–15), who was dismembered. He proposed that the custom of cutting up a body, removing its flesh, or specific body parts, was a burial rite that existed during the Predynastic Period and became associated with Osiris. He further explained that after the advent of 'civilization' these ancient customs were abandoned (Petrie, Wainwright, and MacKay 1912, 11). However, the earliest attestation of the god Osiris is in Pyramid Texts, which date to the 5th Dynasty. It is uncertain whether the funerary concepts relayed in the Pyramid Tests or the god Osiris existed prior to that date. By interpreting the Predynastic burials based on Pyramid Texts and the Osiris Myth, funerary texts of a later date are being projected on much earlier material, which does not always produce historically accurate interpretations. Wainwright based his reasoning on a literal interpretation of certain spells from the 5th Dynasty Pyramid Texts, found inscribed in the burial chamber of Unas (Allen and Manuelian 2005; Faulkner 1969), which he linked to specific examples of the burials excavated at Naqada and Gerza, as well as an example from Maidum and others from Deshasheh (Petrie, Wainwright, and MacKay 1912, 13-14). The Pyramid Texts (PT) were incantations that helped the deceased successfully progress from this world to the next. The texts he cited refer to various body parts being removed or manipulated in order to enable reconstruction and resurrection of the body in another form, as exemplified in the Osiris Myth (Faulkner 1969, 250, 289; Allen 2005, 187). This reasoning led him to conclude that during the Predynastic Period the deceased (or at least, some individuals) desired the dismemberment of their remains, as had been the case for Osiris (Petrie, Wainwright, and MacKay

1912, 11). According to Wainwright, spell PT 197, a prayer made on behalf of Osiris/Unas invoking numerous other deities to piece together his dismembered body clearly displays the desire of the deceased to undergo dismemberment, so that he could be restored and resurrected by divine intervention in the hereafter. It was, therefore, acceptable to dismember a body, he concluded, in a legitimately performed rite, so as to allow the gods to reassemble it (Petrie, Wainwright, and MacKay 1912, 11). John Griffiths refutes this argument, pointing out that Wainwright mistranslated part of spell PT 197, particularly the word *Sat* (Griffiths 1980, 51). Wainwright had interpreted *Sat* to mean that Osiris is 'made' to pieces, and that the deceased is also 'made' into pieces (Petrie, Wainwright, and MacKay 1912, 11). Griffiths argues that *Sat* means 'dread' and not 'made' and, therefore, conveys a prayer on behalf of the deceased to be whole and complete (1980, 51), the reverse of Wainwright's interpretation of the spell.

Several other scholars have also attempted to interpret the evidence of manipulated remains from the Predynastic Period by linking them to the Pyramid Texts and the Osiris Myth. Aldolf Hermann argued that the Predynastic burials do not represent a prototype of the Osiris Myth (1956), while Rudolf Anthes (1963) speculated on the possibility of these burials influencing the composition of the Osiris Myth. He attempted to link the practices of dismemberment to the Pyramid Texts based on the interpretation of spell PT 260 (Anthes 1963, 34). He translates the relevant portion of the spell as

> "O Geb, the Bull of Nut, NN is Horus, the heir of his father. He that goes and comes is NN, the fourth of those four gods, that have brought water and have

> caused purification (?), they that make acclamation with the foreleg(s) of their fathers" (Anthes 1954, 33).

He based his interpretation of the text on the reference, in the text of the spell, to some form of a celebration or jubilation linked to the 'forelegs of the fathers'. In expressing confusion at the meaning of this statement, Anthes adopted Siegfried Schott's earlier suggestion that this is a reference to an actual practice of dismemberment, where mythological allusions were performed in actual burial rites (Anthes 1954, 34). To further support his suggestion, Anthes refers to a burial rite in a Melanesian island, where the bones of the dead were retrieved for ceremonial purposes (1954, 34). This particular part of spell PT 260 was later translated to read the "strength of the fathers" and not the "forelegs" and is, therefore, actually not related to the subject at all (Faulkner 1969, 69).

Although Anthes agrees with Hermann's belief that the Predynastic burials do not represent a prototype of the Osiris Myth, he believes that the practices undertaken in these burials may have influenced the composition of the myth (1963, 79). He, however, makes the error of stating that the practice was confined to higher standing individuals of the ancient community in an effort to further link it to the Pyramid Texts, which were restricted to royalty when they first appeared (Anthes 1963, 78-79). The burials with displaced or dismembered human remains were found in a range of burial types, integrated within the cemetery and with an array of grave goods, which testifies to the diverse social standing of their occupants. Therefore, the practice was not restricted to individuals of a specific social standing (Dougherty and Friedman 2008, 327).

This misassumption remained associated with the burials and is found repeated in a later publication (e.g. Assmann 1989, 138).

Other scholars argue against the possibility of a ritual of dismemberment or skeletal manipulation existing in the Predynastic Period because it contrasts sharply with the later practice of mummification. Hans Bonnet (1971) argues that burials with rearranged remains were the result of a number of random and unrelated instances. He proposes that some were no more than cases of looting and disturbance, while others may have been subjected to a secondary burial, meaning the relocation of buried bodies (1971, 421–422). Bonnet suggested that limbs may have been detached from the torso in order to allow them to be wrapped in early attempts of mummification (1971, 422).

John Griffiths (1980) rejected the possibility of a Predynastic burial rite that legitimately dismembered bodies. He refutes the earlier arguments made by Anthes and Wainwright as being based on mistranslations, and agrees with Bonnet's proposition (1980, 51). He interprets skeletons or bodies with parts that were found absent or detached as, "The purpose must have been to do away with the corruptible part of the body, thus ensuring that what remained would be permanently preserved" (Griffiths 1980, 52). Griffiths cites the importance of keeping a body whole, and the Egyptian fear of dismemberment, as found in funerary literature, as the most compelling evidence against the dismemberment of a body for ritual purposes. He further states that had such a ritual existed, there would be no trace left of it since the bodies would have been reassembled (Griffiths 1980, 52).

Jan Assmann (1989) emphasizes the distinction between the literary theme of dismemberment and its role in mummification and funerary religion, and the actual practice that occurred in Predynastic Egypt. In a subsequent publication (2005), he investigates a belief that was retained in Egyptian funerary texts for the body to undergo a metaphorical dismemberment upon death (2005, 34–38). His exploration of the idea of death as dismemberment, after the advent of mummification, adds to the discussion of dismemberment as a practice in Predynastic Egypt and as a literary/funerary concept embedded in the culture of mummification. The possibility of a connection between the manipulated Predynastic burials and the Osiris myth is examined through Stewart's recent PhD thesis (2014), which examined the composition of the Osiris Myth at the time of its emergence. New finds from Adaima and Tell el-Farkha have spurred on fresh debate on the subject of Predynastic body treatments.[3] David Wengrow and John Baines (2004) suggest that the diverse body treatments documented during this period point to the rise of growing cultural and social complexity, citing the body treatments, together with the qualitative value of the grave goods and their distribution within the burial as an indication for the emergence of complex funerary beliefs. Subsequently, Wengrow expanded on the significance of the qualitative attributes of Predynastic burials in exposing social complexity by studying burials with displaced skeletal remains (2009, 116-123). He refers to the burials as dismembered and supposes that they were dried and cut up prior to burial (Wengrow 2009, 118, 122). He suggests that fragmenting the body in a burial rite may have been practiced to create a final funerary image of the deceased

[3] See Chapter 5 and 6 for further discussions of these sites.

within the burial space that encompasses the social ties amassed by an individual, or to distribute the remains of an individual in several locations and create multiple arenas for commemoration (Wengrow 2009, 121–122). He, therefore, believes that the fragmented bodies are telling of a funerary ritual that involved more efforts of the community, which sought to commemorate the memory of the deceased (Wengrow 2009, 117–118). Based on his supposition that the bodies were left to dry and then dismembered, he deduces that the additional time and effort required in creating these burials would have extended the funerary rituals and allowed for the development of more complicated tombs and rituals (Wengrow 2009, 122). Despite the paucity of evidence on these unique and rich burials, he asserts that they highlight a "distinctive social innovation, in need of further elucidation" (Wengrow 2009, 118).

Cultural Parallels

Ancient burial practices that manipulate a skeleton or a body are not unique to Egypt. Burials in Prehistoric Europe, Turkey and the Levant present evidence for the manipulation of bodies and skeletons. A number of publications provide intriguing interpretations, which offer the potential for explaining the significance and value of the affected burials in Predynastic Egypt. Chris Fowler (2010) investigates diverse body treatments documented in Neolithic Britain and Ireland and speculates on their social and ritual significance. Karina Croucher (2010) examines the conception of the body and identity in a number of cultures through three case studies. She believes that the purpose of fragmenting the body or skeleton was to circulate the bones in the community

and to bury them in many burial spaces in an effort to link events and people to the landscape, and construct social memory (Croucher 2010, 16). Joanna Bruck (2006) offers another interesting explanation by examining the deliberate fragmentation of the skeleton and its potential implications. She finds that bones were possibly retained and circulated within communities in an effort to maintain ties with the ancestors and to reinforce kinship.

Ethnographic parallels for the manipulation of human remains after death also provide models for trying to understand the evidence from Predynastic Egypt. Robert Hertz (1960) records burial rites where the corpse or skeleton undergoes various prolonged funerary treatments mainly through the study of the death rituals of the Dayak of Borneo, but also with reference to other cultures, including Papuan, Bantu, Australian and Native American tribes[4]. The interventions include drying the body, exposure to scavenging animals, gathering and reburying skeletons, and retrieving specific bones from a burial. His study is important in identifying an underlying structure for prolonged burial rites that manipulate corpses or skeletons, and the role of the community in the rites. His investigation also offers unique insight into the social implications of practicing prolonged burial rites, which can be used as models to better understand the Predynastic communities that employed similar practices.

[4] The original French edition of his article was published in 1907.

2. Sources and Methodology

This study explores the manipulation of the skeleton in Predynastic burials from the sites of Naqada, Gerza, Adaima and Tell El Farkha. These sites were chosen as they have the majority of documented and published examples of the deliberate manipulation of the skeleton and are geographically distributed across Egypt, thereby providing a broad view of burial practices throughout the country. The information for the study was derived from their publications: Naqada (Petrie and Quibell 1896), Gerza (Petrie, Wainwright, and MacKay 1912), Adaima (Crubezy, Janin, and Midant-Reynes 2002; Crubezy, Duchesne, and Midant-Reynes 2008; Midant-Reynes et al. 1996) and Tell El Farkha (Debowska-Ludwin 2010a; 2012a; 2010d; 2009; 2010c; 2010b; 2012b; 2008), as well as additional information derived from unpublished excavation journals for the sites of Naqada and Gerza.[5] Other Predynastic cemeteries contained some examples of similarly displaced skeletons, such as El Amra (Randall-MacIver and Mace 1902, 21, 23, 27), Abydos (Peet 1914, 14) and Naga El Deir (Lythgoe 1965), but these were not included in this thesis due to ambiguous or missing data. The site of Hierakonpolis is referenced throughout this study as it provides crucial evidence on diverse body treatments and was a prominent urban center during this period. However, only a single case of deliberate bone displacement was noted in the cemeteries and cannot be included as it has not yet been published in full (Friedman 2002, 10).

[5] The unpublished excavation journals for the sites of Naqada and Gerza were provided to this study by the generosity of the Petrie Museum of Egyptian Archaeology, UCL, courtesy of Dr. Alice Stevenson.

The Evidence

The burials that were chosen for inclusion were identified by the excavators as having been manipulated in antiquity. Some of the graves were identified as intact by the excavators, while others were stated as plundered, or possibly plundered, but have been included as the analyses of the author showed that using forensic taphonomy principals, burials with deliberate human activity can be identified. This study relied on the excavators' assessment of the condition of the burial, and what they stated as intact was included as such in the database. Even when the burial was not found intact, the excavators were able to identify cases where a deliberate movement of the bones was suspected based on the arrangement of the burial assemblage. They found that the displacement of bones within these burials could not be attributed to natural taphonomic factors or to plundering. These burials were included in this study. There is a possibility that the rearrangement of the bones in the graves that were identified as plundered was due to the actions of the looters; in this thesis, however, a number of measures were taken to identify and assess skeletons that were more likely affected with a deliberate movement of bones as opposed to the result of looting. To counter the possibility of these burials displaying examples of looting or accidental movement, a number of cases were not included in this study. Burials that were recorded by the excavators as being cut by another burial, or possibly reused, were excluded due to the possibility of the skeleton having been accidentally displaced. An argument of accidental displacement can also be made for burials containing multiple individuals, where one skeleton is affected and the other/s not, suggesting that one skeleton was accidentally moved during subsequent interment(s). However, multiple burials where all individuals were

affected with skeletal displacement would prove that the movement of the bones was deliberate, and were included in the study.

Additionally, burials without grave goods were excluded from this study due to the possibility of them having been looted in antiquity. Although burials of the Predynastic Period sometimes lacked grave goods, a grave with a rearranged skeleton and no grave goods makes a persuasive case for the possibility of looting. Burial 251 from Gerza was excluded as it had no grave goods (Petrie, Wainwright, and MacKay 1912, 9). Some graves exhibited an extensive collection of grave goods, seemingly untouched, but no skeleton, as found for example in burials 421 and 177 at Naqada (Fig. 2) (Petrie and Quibell 1896, 1:LXXXII, LXXXIII), which were not included in the study. Other burials were discovered with only a skull buried in the grave. Even though both instances may represent burial customs, they were not included in the database as they did not present sufficient skeletal evidence to enable an interpretation of the cause behind the movement or absence of the bones.

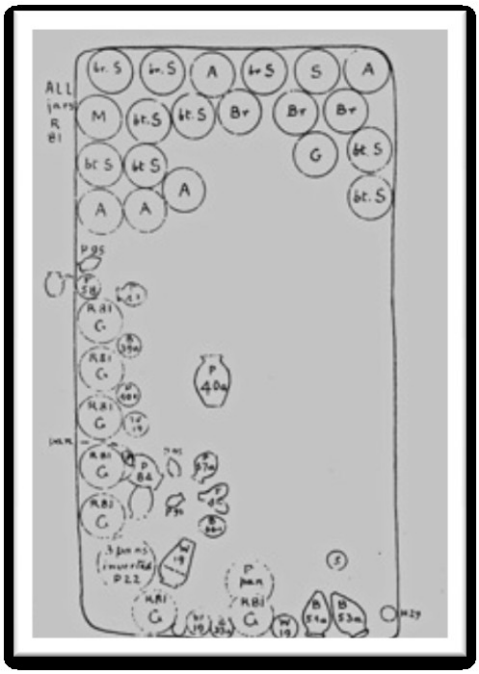

Fig. 2 Naqada Burial 421
(Petrie and Quibell 1896, 1:LXXXIII)
Courtesy of the Petrie Museum of Egyptian Archaeology, UCL

The discipline of forensic taphonomy is central to this thesis. Here, the term skeletal displacement refers to instances where skeletons were found affected by the deliberate movement or removal of bones, after their decomposition. The result of such practices either leaves the skeleton rearranged within the burial or missing some bones in instances where they appear to have been intentionally removed from the tomb. Some burials display both these features. The difference between a disturbed burial and a secondary burial is determined based on the cause behind the movement of the bones (Andrews and Bello 2006, 17). Disturbed burials accidentally affect human remains, whereas secondary burial activities are directed at the skeleton or body (see Terminology in Chapter 1). Some elements that are distinctive to secondary burials include the arrangement or gathering of bones, the placement of bones in objects, the replacement of bones with objects and the presence of in situ grave goods. These

rearrangements of the bones are not considered patterns that are associated with disturbed or plundered burials.

Determining a burial is a secondary interment that was deliberately manipulated is primarily based on eliminating all other possible causes for the movement or rearrangement of the bones in a skeleton (Duday 2006, 46). Sometimes, with all the evidence present, a burial may not be conclusively identified as primary, secondary or disturbed. Secondary burials are most obvious in instances where bones are bundled, grouped, or placed in a pattern which cannot be explained by natural taphonomic processes (Duday 2006, 47). In these cases, human intervention with the intention of manipulating the skeleton for ritual or mortuary purpose is strongly suspected.

Numerous contemporary and ancient cultures were known to practice burial rites that moved and/or manipulated the body and skeleton (Shanks and Tilley 1984; Woodward et al. 2005; Bruck 2006; Beckett and Robb 2006; Fowler 2010; Skeates 1999; Cullen 1999; Triantaphyllou 2008; Talalay 2002; Andrews and Bello 2006; Hertz 1960). The identification of the criteria for recognizing these rituals in archaeological contexts is still being formulated (Duday 2006, 46–47). Given the complicated and highly variable nature of the post-depositional history of a human burial, it is not always identifiable with certainty. The argument that many of these burials present no more than instances of disturbance has been previously proposed in scholarly literature (Bonnet 1971, 421-422; Griffiths 1980, 51-52); in this study, these burials will be explored as possibly displaying evidence of a deliberate mortuary practice..

Issues with the Sources

Some issues were encountered in the old publications of Naqada and Gerza (Petrie and Quibell 1896; Petrie, Wainwright, and MacKay 1912). One of the main problems was that some, but not all, burials are described in the publications, and few drawings of the skeletons and the graves are provided. The unpublished field notebooks for both sites were used to fill in some of the details which allow for a more precise analysis of the evidence (Petrie and Quibell 1894; Petrie, Wainwright, and MacKay 1910). The excavation journals also provided additional information on the burials and skeletons that was not included in the site reports. Some burials that appear in the excavation journal of Naqada appear to present evidence for deliberate skeletal displacement, but were not included in the publication (Fig. 3) (Petrie and Quibell 1894). These cases were excluded from this thesis due to insufficient data, but raise the possibility of the presence of more burials affected with skeletal displacement existing at Naqada.

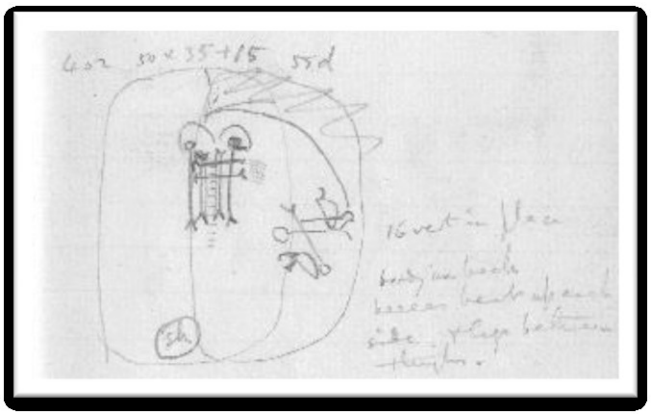

Fig. 3 Burial 402 from Naqada and Ballas Excavation Journal
(Petrie and Quibell 1894)
Courtesy of the Petrie Museum of Egyptian Archaeology, UCL

The identification of the date and sex of the individuals from Naqada and Gerza was not possible in this thesis. In both the Naqada and Gerza publications, the excavators rarely state the sex of the skeleton. When they do, it is not

necessarily reliable since the technique and standards used for identifying sex were not yet established at that time. However, their identification was included in the database when mentioned, followed by a question mark. Similarly, the dating for the Naqada Period had not yet been established when these publications were written and so are not provided in the site reports. Some burials have subsequently been dated, but no thorough revision of the dates for all the burials has been conducted yet, as such, the dates for Naqada and Gerza were not included in this thesis and are generally stated as belonging to the Naqada Period.

Even though Petrie identified burials that appear to have been deliberately rearranged in the publication, as opposed to those that were plundered, there are cases where he suspects plundering based on bones missing from the skeleton, even when grave goods were present in the grave, such as in burial 286 from Naqada (Petrie and Quibell 1896, 1:26). In other instances, he uses the word 'disturbed' to describe a skeleton that was rearranged making it uncertain if he is referring only to the rearranged state of the skeleton or to the condition of the grave itself, for example burial 326 from Naqada (Petrie and Quibell 1896, 1:22). These burials were not included in this study due to the ambiguity of the classification, but aptly highlight the issue of the inaccurate identification of these burials, which may lead to their misinterpretation. For that reason, this thesis relies on forensic taphonomy principals in identifying burials with displaced remains from among those that were determined by the excavators for containing a deliberate rearrangement of the bones, and excludes burials that are questionable.

A similar issue was found in the publications of Tell El Farkha where some burials with rearranged human remains are interpreted as disturbed based on the state of the skeleton and not the burial structure. This leads to the misidentification of burials that present evidence with a deliberate rearrangement of the bones and undermines their credibility. This was found present, for example in grave 27, where the burial is classified as disturbed but described as intact with "no sign of robbery recorded" in a single description of the tomb (Debowska-Ludwin 2009, 467). There is a possibility that the rearranged state of the skeleton is what led the author to classify it as disturbed. This in turn leads to the misclassification of the burial and, therefore, makes it appear as questionable.

A few other issues were encountered with the evidence from Tell El Farkha. The information for the affected burials was derived from eight publications (Debowska-Ludwin 2010a; 2010b; 2010c; 2012a; 2010d; 2012b; 2008; 2009). Often, the description of a single burial was pieced together from multiple publications, making it difficult to be sure that all the pertinent information had been successfully compiled. In a publication examining the anomalous burials at Tell El Farkha (2010a), Debowska-Ludwin attributes the movement of bones in some burials to a number of causes, which included the transference of a skeleton from one grave to another (Burial 69); a body that was buried in a state of decay (Burials 2, 24, 114); a body that was originally placed in a container that disintegrated leaving no trace, and whose vanishing caused the bones to shift (Burials 2 and 114); and an unknown funerary ritual (Burials 14 and 19) (Debowska-Ludwin 2010a, 375–377). Several interpretations were applied to a single grave, such as in the case of burials 2 and 114. Debowska-

Ludwin also proposes that during the Predynastic Period, the body may have been kept for a period of time while the burial was prepared. By the time the body was interred, it was partially decomposed and some bones were reassembled in the tomb (Debowska-Ludwin 2010a, 377). Debowska-Ludwin explains that these early "technical difficulties" with burying the deceased in a timely fashion were the cause of the rearranged remains, and whatever "technical difficulties" had caused them, had been resolved by the second phase of the cemetery (Debowska-Ludwin 2010a, 377). Debowska-Ludwin believes that 'special' funerary practices may account for the early burials at Tell El Farkha, when burial customs were in their formative stage, but concludes by stating that even if a ritual caused the rearrangement of the bones in the burials, too little evidence exists for interpretation or further elaboration (Debowska-Ludwin 2010a, 377). By proposing a number of interpretations for burials that in fact bear similarities, it hinders the interpretation of the burials and makes it appear as though random events and practical necessities were the cause behind the rearrangement of the skeleton. Furthermore, by interpreting the burials as caused by multiple and random events, it indeed does appear like too little evidence exists for an explanation of what was taking place. While the interpretations proposed by Debowska-Ludwin may be plausible, the similarity within these burials in the alteration of skeletons makes it equally possible that a burial ritual that deliberately rearranged skeletons caused some, if not all, of them.

At Adaima, numerous burials might be possible examples of the deliberate manipulation of the skeleton, but were not identified in the publication as such. This is likely due to a number of reasons. The first is the widespread looting that

was documented in the Western Cemetery, which obscured the evidence. The second reason is that the authors chose to attribute the rearrangement of bones in the graves to different degrees of looting, rather than being associated with an ancient burial practice (Crubezy, Janin, and Midant-Reynes 2002, 438–441), and thus there is a very significant amount of interpretation in the publication. The excavators suggest a specific style of focused looting to have taken place in the cemeteries, which affected the region of the head in some burials and left most burial goods in situ. The bodies at Adaima were covered with very soft textured sand. The excavators believe that looters who witnessed the burial returned after the body had decomposed into a skeleton and reached with ease into sand to steal valuable grave goods, and accidentally moved the bones (Crubezy, Janin, and Midant-Reynes 2002, 439). Thus, burials that were found with minimal movement of the bones, mostly affecting the skull, neck vertebrae and hands, are interpreted as having been accidentally moved by looters searching for necklaces or malachite, which would have been placed near the face and hands (Crubezy, Janin, and Midant-Reynes 2002, 439). However, the resulting rearrangement described is very similar to that found in burials affected with deliberate skeletal displacement. Therefore, this classification of theft potentially dismisses further evidence for deliberate skeletal displacement (Crubezy, Janin, and Midant-Reynes 2002, 439). Unfortunately, as this thesis relies on the excavations of others, this author has chosen to only use the three burials that the excavators have identified as being deliberately manipulated, though I am dubious that these are the only examples of such body treatments in the cemetery. The absence of detailed drawings for the burials in the excavation report further

prevented the author from reclassifying some of the burials described in the publication as caused by deliberate human activity.

The Data: Presentation and Analysis

The data from each cemetery was placed in an Excel sheet, in which several variables were examined. The key for the abbreviations used in the database is provided at the end of this chapter. The information gleaned from the database will be used as the basis for the interpretation of these burials as caused by a funerary activity that was practiced during the Predynastic Period. The variables used in the database are as follows:

- **Case Number** is the number of the burial in this study per site.
- The **Date** of each burial is based on those appearing in the publications for Adaima and Tell el Farkha. 'N' refers to Naqada and is followed by the phase, indicated as I, II or III; and the sub-divisions in letters and numbers (A1-4, B1-4, C1-4, D1-4). The accurate date of the burials is not provided in the old site reports and, therefore, is not included for the sites of Naqada and Gerza as the burials were not re-dated by the author of this thesis. Instead, they are written as 'N', which stands for the Naqada Period generally.
- **Grave Number**, as assigned by the excavator. Letters were used, following the burial number, to differentiate multiple individuals in one burial (171a, 171b, etc.) and are the author's own distinction. An asterisk (*) indicates that the data was derived from the text in the absence of drawings. **Bold** indicates that the excavators recorded the burial as intact.
- **Number of Individuals** in each grave.

- The **Sex and Age** of the individuals as determined by the excavators. When the excavators state that it is uncertain, it is marked 'U'. Otherwise, 'M' refers to males and 'F' to females. Since the techniques used to determine sex and age in the old excavations is not reliable, it is not used in this study with regards to Naqada and Gerza, and is marked 'NA'. When mentioned, the information is included followed by a question mark.
- **Displacement Type** was used to see how much of the skeleton was affected with displaced or absent bones. Total (T) is when only 5 bones or less were left undisturbed and in anatomical alignment. Partial (P) is when less than half the skeleton, with about 10-15 bones, is affected with displaced or absent bones. Minimal (M) is when only 5 bones, or less, were affected. When very few bones were left in the grave 'O' (for only) is used, followed by the abbreviations of the bones present in the grave. Hands (carpals, metacarpals and phalanges), as well as feet (tarsals, metatarsals and phalanges) were counted as a single bone element.
- The presence of seemingly undisturbed bones in affected skeletons was recorded under **Presence of Anatomical Alignment**. 'Y' (yes) means that some anatomical alignment was observed in the skeleton, 'N' for no and 'U' for uncertain.
- The body was divided into skull, arms, legs and torso in **Parts Affected** to determine which parts were most frequently manipulated. The skull includes cranium and mandible; arms include humeri, ulnae, radii, carpals, metacarpals and phalanges, the hands (carpals, metacarpals and phalanges) were counted as a single element; legs include femurs, tibae, fibulae, tarsals, metatarsals and phalanges, feet (tarsals, metatarsals and

phalanges) were counted as a single bone element; and torso includes clavicles, scapulae, sternum, ribs, vertebrae, pelvis, sacrum and coccyx. No differentiation was made between right and left bones in the database.

- **Displaced Bones** includes abbreviations of all the bones found displaced in the grave. The abbreviations used are located in the key at the end of this chapter.
- **Absent Bones** includes abbreviations of all the bones that were absent from the grave. The abbreviations used are located in the key at the end of this chapter.
- The **Status of Bones** was used to classify the skeleton as containing displaced bones 'D', absent bones 'A', or both 'DA'.
- The abbreviations of the **Grave Goods** found in the grave were recorded for each burial. Abbreviations were used to indicate when objects were found in, under, on, near, or in place of bones. The abbreviations used are located in the key at the end of this chapter.
- In **Notes,** any additional information from the publications on the grave or the skeleton is recorded. The source and page number of the included information is cited below. The abbreviations for the citations used are located in the key at the end of this chapter.

Database Abbreviations Key

Displaced/Absent Bones

L = left R= right

Cranium- C (Sk + M)

Skull – Sk

Mandible – M

Teeth – Te

Tooth - To

Vertebrae – V

Cervical – VCer

Thoracic - VTho

Lumbar – VLum

Clavicle – Cl

Scapula – Sc

Sternum – St

Ribs – Ri

Humerus – Hu

Ulna – Ul

Radius – Ra

Carpals – Car

Metacarpals – Mcar

Phalanges – Cph (hands)

Pelvis – Pe

Sacrum – Sa

Coccyx – Co

Femur – Fe

Patella – Pa

Tibia – Tib

Fibula – Fib

Tarsals – Tar

Metatarsals – Mtar

Phalanges – Tph (feet)

Uncertain – U

(bones between brackets) – Uncertain despite the journal entry

Grave Goods

Pottery – P

Stone Vessels – Sv

Palettes – Pa

Figurines – Fi

Flint – Fl

Beads – B

Mat – M

Bed/Wood Frame – Fr

Papyrus Mat – Pm

Leather Bag – Lb

Malachite – Ma

Resin – Re

Comb – C

Spoon – Sp

Mace-head – Mh

Ivory – Iv

Bone – Bo

Clay – Cl

Copper – Co

Bronze – Br

Fragment of any object– frag

Uncertain if other grave goods were present – U

Object Placement

In – in

Under – u

On – o

Near – n

In place of – ip

Around – a

With - w

Formula – object/abbreviation in, u, o etc/ abbreviation of bone sc, hu etc. (example: B in sk, or Iv sp n P – to be read beads in skull and ivory spoon near Pottery)

Notes

The page number where the data was derived is cited in the Notes:

N – Naqada and Ballas site report [Petrie, W.M.F., and J. Quibell. 1896. *Naqada and Ballas 1895*. Vol. 1. Great Britain: Quaritch.]

G – Gerza site report [Petrie, W.M.F., G. Wainwright, and E. MacKay. 1912. *The Labryinth of Gerzeh and Mazghuneh*. London: University College London.]

Exc. J. – Unpublished excavation journal [Petrie, W.M.F., and J. Quibell. 1894 - 1895. "The Naqada and Ballas Excavations." Unpublished field notebook. London: The Petrie Museum of Egyptian Archaeology, UCL.]

and

Petrie, W.M.F, G. Wainwright, and E. MacKay. 1910 - 1911."The Gerzeh and Mazghuneh Excavations." Unpublished field notebook. London: The Petrie Museum of Egyptian Archaeology, UCL.]

No page numbers are provided for the excavation journals as they are not numbered.

T 2009A – Tell El Farkha/relevant source by date as listed in bibliography

A – Adaima site report [Crubezy, E., T. Janin, and B. Midant-Reynes.2002. *Adaima 2: La Nécropole Prédynastique, Fouilles de L'Institut Français d'Archéologie Orientale*. Cairo: Institut francais d'archeologie orientale.]

3. Naqada

The site of Naqada is situated about 27 kilometers north of Luxor on the west bank of the Nile, and was first excavated by William M.F. Petrie and James E. Quibell (1896) and then Jacques de Morgan (1897). The majority of Predynastic material came from a cemetery that was named the 'Great New Race Cemetery' (Fig. 4) by Petrie and Quibell (1896, 1:18). Other graves of that era came from a number of smaller cemeteries, named Cemetery T, B and G by Petrie and Quibell, that were set apart from the main cemetery and contained about 100 graves (Fig. 8 and 9) (Midant-Reynes, 2000, 188; Petrie and Quibell 1896, 1:18). A total of around 2,200 burials were excavated in all the cemeteries, dating from Naqada I to the early Dynastic Period, displaying a range of grave types reflecting individuals of varying social status (Midant-Reynes, 2000, 189; Bard 2008, 97; 94). The tombs in Cemeteries T (mainly Naqada II and III), B and G were larger than the other tombs in the cemeteries and contained valuable grave goods, and perhaps belonged to people of a higher socio-economic status (Midant-Reynes, 2000, 188-89). Unfortunately, not all the tomb numbers appear on Petrie's maps in the publication, therefore, only the ones marked are identified in the maps below. The distribution of the burials with displaced skeletal remains in all the cemeteries indicates that they were not set apart or distinguished from other graves (Fig. 4, 5, 6, 7, 8, 9).

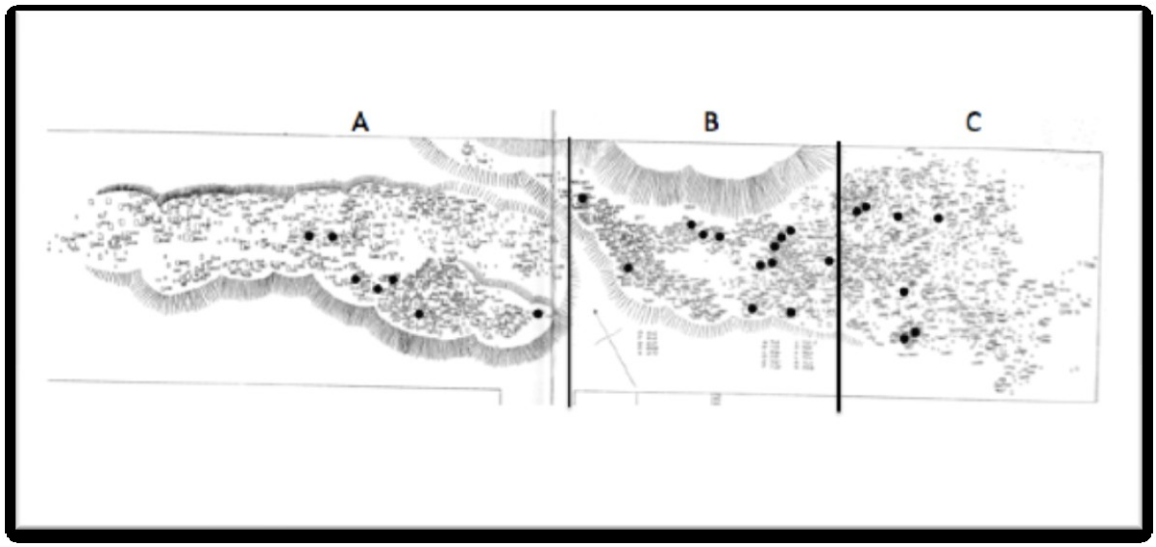

Fig. 4 Map of Naqada 'Great New Race' Cemetery with approximation of some affected burials marked
(Petrie and Quibell 1896, 1:LXXXVI)
Courtesy of the Petrie Museum of Egyptian Archaeology, UCL

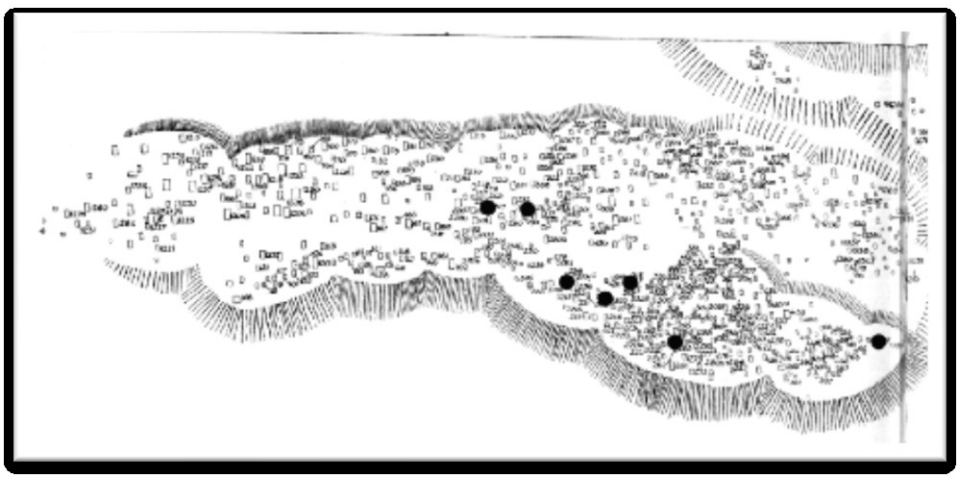

Fig. 5 Detailed Map of Naqada 'Great New Race' Cemetery (A) with approximation of some affected burials marked
(Petrie and Quibell 1896, 1:LXXXVI)
Courtesy of the Petrie Museum of Egyptian Archaeology, UCL

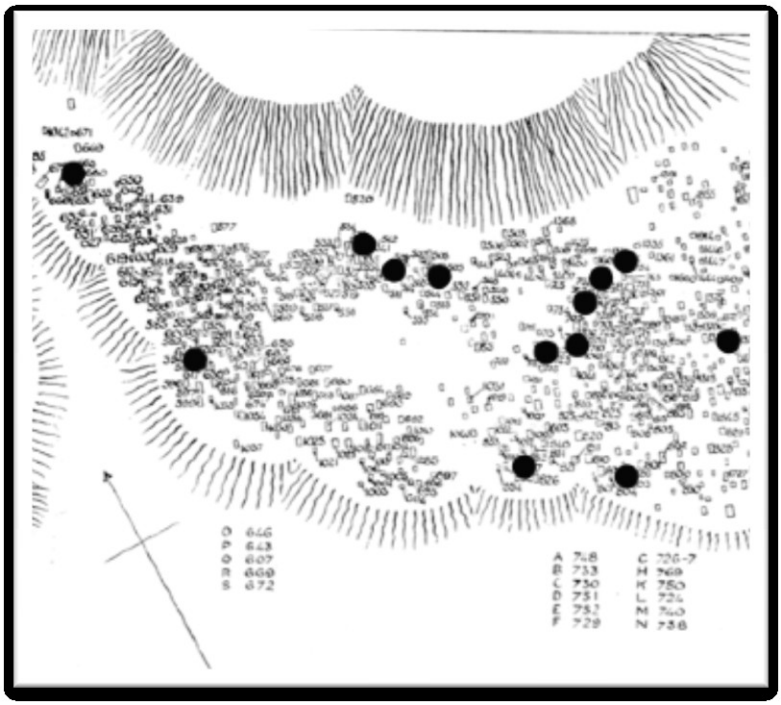

Fig. 6 Detailed Map of Naqada 'Great New Race' Cemetery (B) with approximation of some affected burials marked
(Petrie and Quibell 1896, 1:LXXXVI)
Courtesy of the Petrie Museum of Egyptian Archaeology, UCL

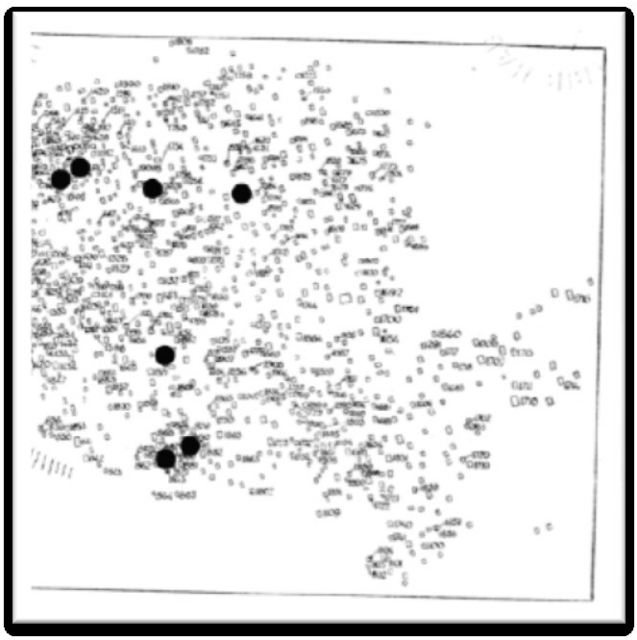

Fig. 7 Detailed Map of Naqada 'Great New Race' Cemetery (C) with approximation of some affected burials marked
(Petrie and Quibell 1896, 1:LXXXVI)
Courtesy of the Petrie Museum of Egyptian Archaeology, UCL

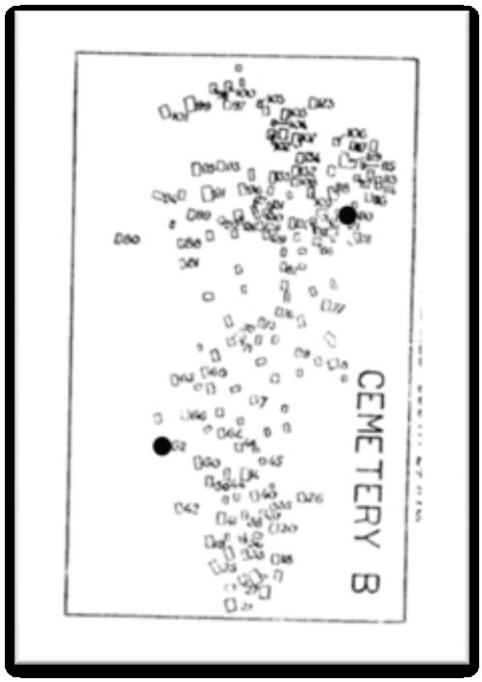

Fig. 8 Detailed Map of Naqada Cemetery B with approximation of some affected burials marked
(Petrie and Quibell 1896, 1:LXXXVI)
Courtesy of the Petrie Museum of Egyptian Archaeology, UCL

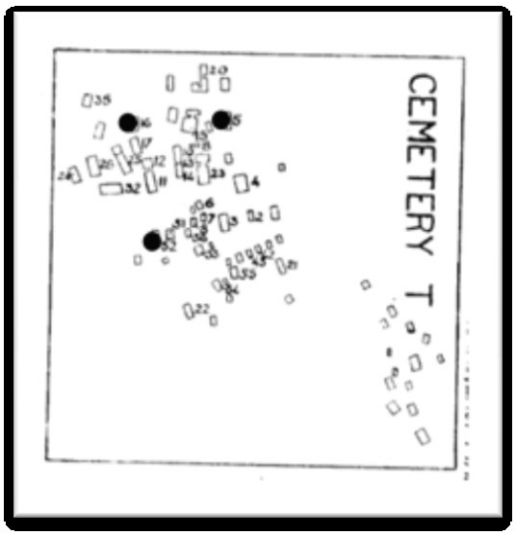

Fig. 9 Detailed Map of Naqada Cemetery T with approximation of some affected burials marked
(Petrie and Quibell 1896, 1:LXXXVI)
Courtesy of the Petrie Museum of Egyptian Archaeology, UCL

Affected Burials

Case No	Grave No	Date	No of Indiv.	Sex / Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
1	T 5	N	min 6	NA	T	N	All	sk o brick	U	D U	P, Sv (w pebble inside), Pa, B (in Sv + u sk), Ma (in Sv + in sk + u sk)	Petrie notes that the bones were deliberately placed in that arrangement. 6 skulls recovered, 5 in the middle of the tomb and one in the south over a brick alongside vessels. One skull found placed over stone beads and malachite. Some bones broken, one skull broken. Valuable stone vessels (of very high quality) and beads undisturbed. Beads were found inside a breccia vessel. Petrie remarks that the grave does not appear to have been disturbed since the burial. **N p. 19-20, 32, LXXXII and Exc. J.**
2	T 16	N	1	NA	M	Y	V	V	N	D	P, Sv, B, Pa, shells	3 vertebrae noted as absent, rest of the body intact. Fragments of a pelvis of a young individual found in the southeast corner. Undisturbed beads were placed close to the top of the skull and stone vessels near the

Case No	Grave No	Date	No of Indiv.	Sex / Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
												hands and arms. **N p. 20, LXXXII and Exc. J.**
3	**T 19**	N	1	NA	P	Y	skull, torso, arms	V, Sk, hu, ra, ul, car, Mcar Cph, sc, ri, st, cl	U	D U	P	Only the lower portion of the spine, the pelvis and the legs were found in place. The rest of the bones were dispersed in the burial. The arm bones were laid parallel in the south of the grave. **N p. 20, LXXXII**
4	594	N	4	NA (3 adults, 1 chil	T	N	All	All	U	D U	P	Vertebrae scattered, leg bones laid parallel in center of grave. Other bones displaced. Fragments of skulls found. **N p. 22, LXXXIII**

Case No	Grave No	Date	No of Indiv.	Sex / Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
				d)								
5	733	N	1	NA	P	Y	skull, torso, arms	sk, cl, sc, st, hu, ul, ra, ri, car, Mcar, Cph	v	DA	P, Iv pin	Portion of spine, pelvis, legs and feet found in situ and intact. Arm bones rearranged and skull turned upside down. Vessels placed very close to skull, one contained an ivory pin. **N p. 22, LXXXII and Exc. J.**
6	880	N	4	NA (3 adults, 1 infant)	T	N	All	All	U	D U	P, Re (in P)	Bones laid parallel in center of burial. Pelvic bones and vertebrae scattered in grave. One skull found. **N p. 23, 32, LXXXIII**

Case No	Grave No	Date	No of Indiv.	Sex / Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
7	B 62 a (child)	N	2	NA (child)	P	Y	torso, arms, legs	hu, ul, ra, car, Mcar, Cph, fe, tib, fib, pe, pa, tar, Mtar, Tph	U	D U	P	Child buried in annex of grave blocked in with stones. Child's skeleton rearranged, upper body huddled around adult's skull. Adult in the rest of the grave. Adult's skull found with child. Pelvis, some vertebrae, ribs, right scapula and arms of adult intact and in situ. The rest of the body scattered with bones absent. **N p. 23 and Exc. J.**
8	B 62 b (adult)	N	2	NA (adult)	P	Y	skull, torso, legs	sk, fe, tib, fib, tar,	L sc, frag hu, car, Mcar,	DA	P (u body)	Child buried in annex of grave blocked in with stones. Child's skeleton rearranged, upper body huddled around adult's skull. Adult in the rest of the grave. Adult's skull found with child. Pelvis, some vertebrae, ribs, right scapula and arms of adult intact and in situ.

Case No	Grave No	Date	No of Indiv.	Sex / Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
								Mtar, Tph	Cph, ?			The rest of the body scattered with bones absent. **N p. 23 and Exc. J.**
9	B 110	N	1	NA	M	Y	skull	Sk o sticks o body	N	D	P, Pa?	Sticks lying on top of upper body of skeleton, skull placed on the left side on top. Wood lined west and south of grave. Unidentified object above legs in excavation journal possibly palette. **N p. 24 and Exc. J.**
10	T 52	N	1	NA	P	Y	skull, torso, arms	sk o vessels, cl, sc, st, hu, ul, ra, ri, car, Mcar,	U	D U	P	Legs and feet in situ, rest of the body rearranged. Some bones possibly absent. Vertebrae noted as fused (hunchback). Skull noted as "half skull high up on top of pots" in excavation journal. Ox skull on north side of grave below the feet. **N p. 24 and Exc. J.**

Case No	Grave No	Date	No of Indiv.	Sex / Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
								Cph, pe				
11	3	N	1	NA	T	N	All	All	U	D U	P, B (in sk), Fr, Co needles	Large grave with about 42 vessels. Arm bones, leg bones (including femur) and one vertebra found in the southern end of the burial scattered amid vessels. Skull upturned, near south wall with beads inside it. **N p. 24 and Exc. J.**
12	42	N	1	NA	P	Y	skull, torso, arms	sk, cl, st, hu, ul, ra, Car, Mcar, Cph, ri, v	U	D U	P (u legs), Pa, Pm	Skeleton from spine to feet intact and in situ, including scapulae. Body lay on papyrus mat and underneath it a layer of ash. Ribs were found broken. Arms, hands and skull scattered within burial. 2 vessels placed beneath the legs. **N p. 25, 32 and Exc. J.**

Case No	Grave No	Date	No of Indiv.	Sex / Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
13	57*	N	1	NA	M	Y	skull, torso	sk o brick 1 v in v cl, half of m	N	D	P (one w v inside), U	Skeleton complete from the feet to the shoulders. Skull found placed upright on brick. One cervical vertebra placed in a vessel. Vessels all intact and close to in situ hands. Petrie concludes based on lines of washed in filling that pit was left open after skull placed inside. Petrie certain that it cannot be result of plundering. **N p. 25, 30**
14	124*	N	1	NA	M	Y	skull	sk	N	D	P, Fl, Iv sp	Body intact except for the skull, which was placed on the south end of burial. **N p. 25**
15	127	N	1	NA	P	Y	skull (torso, arms)	sk	(hu, ul, ra, Car, Mcar, Cph, ri, st, cl)	D (A)	P (ip of sk),	Petrie notes that it was a young but large body. All intact except the skull moved west of the body and placed with 3 vessels. Thighbone broken. Vessel found placed instead of skull. Uncertain whether arms and hands were absent or present. **N p. 25,30 and Exc. J.**

Case No	Grave No	Date	No of Indiv.	Sex / Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
16	234	N	1	(child)	P	Y	skull, torso, arms	N	sk, v, ri, hu, ul, ra, Car, Mcar, Cph, st, cl, sc, (pe)	A	P, Sv, shell, mace-head	Many vessels along west and south of burial. Noted as child by identification of unfused epiphysis. Only 3 vertebrae found in place, pelvis, legs and feet. The rest of the body is identified as destroyed in site report and absent in excavation journal. Red paint is noted on leg bones. **N p. 25 and Exc. J.**
17	236	N	1	NA	M	Y	skull, torso, arms	sk, ri, ul or ra, Car, Mcar, Cph	v	DA	P, frag shell	Skeleton squeezed in south end of burial. All bones intact and in situ with exception of skull and arms, and possibly ribs which were displaced. Skull reversed and mandible detached. Lower arms noted as disjointed in excavation journal and detached in site report. Petrie argues against possibility of burial being plundered. **N p. 25, 31 and Exc. J.**

Case No	Grave No	Date	No of Indiv.	Sex / Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
18	260	N	1	NA	P	Y	skull, torso, arms	N	sk, sc, v, (cl, st, ri, ul, ra,)	A	P, Fl, 2 Bo C (1 o pa, 1 n legs), Fl lance (n feet), 9 Cl cones, Cl rosettes), Papyrus box, shells	Body intact save skull and scapulae and possibly other post-cranial bones that were absent. 11 vertebrae were found but followed by (?) in excavation journal. A papyrus box is said to have contained clay rosettes and cones, likely a gaming board. On the knees were a bone comb placed over a piece of wood according to site report. In excavation journal, comb is north of body. **N p. 26 and Exc. J.**
19	328 *	N	1	NA	P	U	skull, torso, arms,	Tar, Mtar, Tph,	hu, ul, ra,	DA	U	Feet, pelvis and skull recorded as 'lumped together' by Petrie. 'Limb bones' and vertebrae noted as absent. Burial pit was small.

Case No	Grave No	Date	No of Indiv.	Sex / Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
							legs	pe, sk	fe, tib, fib, v			N p. 26
20	343 *	N	1	NA	M	Y	Skull	sk	N	D	P, Pa, Ma, shell, pebble, galena, black powder	Skeleton noted as intact with exception of skull, which was displaced to southwest corner of burial. 'Packet' of galena and black powder recorded as 'clenched in the right hand' in site report. N p. 26
21	660 *	N	1	NA (male)	M	Y	skull	sk	N	D	P, Fl, Ma	Body stated as 'normal', usually means complete. Skull found away from body and reversed. Recorded as male by Petrie. N p. 26
22	664 *	N	1	NA	M	Y	skull	N	sk	A	U, M (a body)	Body stated as complete, including arms. Skull absent from burial. Body entirely wrapped in matting. N p. 26

Case No	Grave No	Date	No of Indiv.	Sex / Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
23	721	N	1	NA	P	Y	skull, torso, arms	N	sk, cl, v, sc, st, ri, hu, ul, ra, Car, Mcar, Cph	A	P, Sv, Fi	Only pelvis, legs and feet in situ, the rest of the body absent. Three animal figurines were under dish placed in front of where hands would have been. About 7 vessels in burial. **N p. 26 and Exc. J.**
24	743	N	1	NA	T	N	O: fe, tib, fib, tar, Mtar, Tph	O: fe, tib, fib, tar, Mtar, Tph	sk, cl, sc, st, ri, v, hu, ul, ra, Car, Mcar, Cph, sa, pe,	DA	P, Sv, Pa, Bo Sp, Ma, Re, flake of obsidian, log of palm tree	Only one leg in situ (including femur, tibia, fibula, tarsals, metatarsals and phalanges). Tibia or fibula fragmented 'anciently' according to Petrie, remaining body absent from burial. **N p. 27 and Exc. J.**

Case No	Grave No	Date	No of Indiv.	Sex / Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
									fe, tib, fib, Tar, Mtar, Tph			
25	827 *	N	1	NA	M	Y	skull	sk b body	N	D	P, M, U	Body noted as 'normal' usually means complete, with exception of skull, which was behind back of body. Mass of hair recorded in burial. Matting was laid over all the bones, the hair and pottery. **N p. 27**
26	867 *	N	1	NA (male)	M	Y	skull	sk	N	D	Pa, lv tusk, lv pin, pebble, galena, U	Body stated as 'normal' with exception of skull, which was moved to southwest corner of burial. **N p. 27**

Case No	Grave No	Date	No of Indiv.	Sex / Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
27	875 a*	N	2	NA	M	Y	skull	N	sk	A	Mh, U	Two bodies in burial. One noted for legs drawn up close to the body. Both stated as normal with exception of absent skulls. Mace-head close to one body, uncertain of presence of other objects. **N p. 27**
28	875 b*	N	2	NA	M	Y	skull	N	sk	A	Mh, U	Two bodies in burial. One noted for legs drawn up close to the body. Both stated as normal with exception of absent skulls. Mace-head close to one body, uncertain of presence of other objects. **N p. 27**
29	137 7*	N	1	NA	M	Y	skull, arms	sk, hu, ul, ra (Car, Mcar, Cph)	N	D	P (ip of sk), M	Body noted as largely intact and wrapped in matting. Skull shifted and a vessel lying in its place. Arm bones found mixed together. **N p. 28, 30**

Case No	Grave No	Date	No of Indiv.	Sex / Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
30	1388*	N	1	NA	M	Y	skull	N	sk	A	Fl, Fr, M, U	Body found placed on framework of wood and covered with a mat. All normal with exception of absent skull. **N p. 28**
31	1419*	N	1	NA (female)	M	Y	skull, arms	sk, ul, ra	N	D	P, 2 Pa, B, Iv tusks, Bo tag, Iv Cs	Body stated as female by Petrie. Body 'normal' but skull reversed and arms lower arms displaced. Near the arms were valuable goods (ivory objects and palettes). Palettes found wrapped in leather cover and tusks bound with leather thongs. **N p. 28**
32	1437*	N	1	NA	M	Y	skull	N	sk	A	P (ip of sk), Sv, Fl	Body stated as 'normal' with exception of absent skull. A vessel was found in place of the skull. Flint knives found broken and placed behind pelvis. **N p. 28**
33	1480	N	1	NA	M	Y	skull	N	sk	A	Pa, Ostrich egg incised	Body 'normal' with exception of absent skull. Ostrich egg incised with two bovid figures found instead of skull. Near the knees two thin copper sheets with decorated with

Case No	Grave No	Date	No of Indiv.	Sex / Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
											(ip of skull), 2 Co sheets	punched holes (Payne 1993, 247, fig. 86). **N p. 28 and Exc. J.**
34	1583 a*	N	2	NA	M	Y	skull	N	sk	A	P, Iv tusks (w Re inside), 3 alabaster tags, Bo tag	Two bodies, both noted as "normal" with exception of absent skulls. Ivory tusks filled with resin and sealed with leather found between the bodies. **N p. 29**
35	1583 b*	N	2	NA	M	Y	skull	N	sk	A	P, Iv tusks (w Re inside), 3 alabast	Two bodies, both noted as "normal" with exception of absent skulls. Ivory tusks filled with resin and sealed with leather found between the bodies. Bone tag top decorated with human face and body. **N p. 29**

Case No	Grave No	Date	No of Indiv.	Sex / Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
											er tags, Bo tag	
36	1909	N	1	NA	M	Y	skull, arm	m	sk, ul, ra	DA	Fl	Body found 'normal' except for absent skull and only one forearm found. Mandible displaced south of the feet. Flint knife found wrapped in leather and placed between the arms. **N p. 29 and Exc. J.**
37	845*	N	1	NA	M	Y	skull, torso	sk o vessels	vcer	DA	P (ip of sk), U	Cervical vertebrae absent from body. Instead of the skull was a ceramic bowl full of small vessels all intact. The skull lay on top of the vessels. **N p. 30**
38	**315***	N	1	NA	M	Y	skull, arms	sk, ul, ra, (Car, Mcar, Cph)	N	D	P, U	Skull and lower arms placed at southwest corner of burial and upright, in situ vessel against them. **N p. 30**

Case No	Grave No	Date	No of Indiv.	Sex / Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
39	1505 a*	N	2	NA	M	Y	skull	sk	N	D	U	Two bodies laid side by side, intact with the exception of the skulls, which were placed together on one side of the grave. **N p. 31**
40	1505 b*	N	2	NA	M	Y	skull	sk	N	D	U	Two bodies laid side by side, intact with the exception of the skulls, which were placed together on one side of the grave. **N p. 31**
41	541	N	1	NA	P	Y	skull, torso, hands	sk, cl, v, st, ri, Car, Mcar, Cph [sk o pile of stones, Cph u	v	DA	P	Pelvis, legs, feet and arms in situ. The rest of the body scattered in burial. Skull, with first cervical vertebra attached, placed onto a pile of stones a short distance from where it should be, with mandible detached nearby. Phalanges of the hand placed under skull with the stones. **N p. 31 and Exc. J.**

Case No	Grave No	Date	No of Indiv.	Sex / Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
								sk, v]				
42	29	N	1	NA	P	Y	skull, torso, arms	sk, ri, ul, ra, Car, Mcar, Cph, sc, cl, hu [sk o pile of stones o body hu, ul,	N	D	P, Bo pin (u feet)	Vertebrae, pelvis, legs and feet in place. Lower arm and hand bones heaped in pile on southern end of grave. Skull placed between the spine and drawn up legs (excavation journal) or on top of the body (site report). In both sources, skull is on a pile of stones. **N p. 31 and Exc. J.**

Case No	Grave No	Date	No of Indiv.	Sex / Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
								ra, car, Mcar, Cph, ri b v]				
43	38	N	1	NA	M	Y	Skull, torso, hands	sk o pile of stones v, sc, Cph, Car, Mcar	N	D	P	Body in place with exception of hands, scapulae and skull, which were displaced within the burial. The skull was at a distance from the body, on the southern end, upturned and with the base broken and the mandible nearby. About 12 vessels were in burial. **N p. 31 and Exc. J.**
44	37	N	1	NA	M	Y	skull, torso	v	sk	DA	P, M	Body mostly intact and buried in tight recess within the burial. The spine is separated but kept in alignment. The skull is absent and Petrie remarks that there would have been no space for it, as the end of the spine is

Case No	Grave No	Date	No of Indiv.	Sex / Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
												against the southern wall of the burial. **N p. 30 and Exc. J.**
45	**712**	N	1	NA	P	Y	skull, arms (torso)	N	(fe, fib, tib)	A (D)	P	Body in place. Skull, lower arms and hands absent. Only 18 vertebrae found. Upper arms and scapulae noted as in situ and untouched. Two upright and intact vessels were placed where the hands would have been. Borderline P or M case. **N p. 31 and Exc. J.**
46	**548**	N	1	NA	M	Y	skull, torso, arms	sk, v,	v, ul,ra, Car, Mcar, Cph	DA	P	Pelvis, legs and feet in place. Only 18 vertebrae counted from the base up. Scapulae and upper arms in place untouched but lower arms and hands absent. The skull was moved to the south end of the burial. **N p. 31 and Exc. J.**
47	**540**	N	1	NA	M	Y	skull, torso, arms	N	sk, ul, ra, Car,	A	P	Body intact except for absent skull, lower arms, hands and 2 vertebrae. Clavicles, scapulae and upper arms noted as untouched. Intact jars were placed where the hands would have been. Petrie states 'unplundered' in

Case No	Grave No	Date	No of Indiv.	Sex / Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
									Mcar, Cph, Vcer			excavation journal. **N p. 31 and Exc. J.**
48	255*	N	1	NA	M	Y	arms	N	ul, ra, Car, Mcar, Cph	A	U	Body intact with exception of absent lower arms and hands. **N p. 31**
49	804*	N	1	NA	M	Y	arms	N	ul, ra, Car, Mcar, Cph	A	U	Body intact with exception of absent lower arms and hands. **N p. 31**
50	32	N	1	NA	P	Y	skull, torso, arms, legs	sc, hu, ul, ra, Car, Mcar,	sk, pe, sa, st, fe, tib,	DA	**P**	Body sealed in recess on side of grave with built wall that was found intact. Vessels found under wall. Arms, shoulder blades, hands displaced; ribs piled behind the feet. Skull, pelvis and legs absent from grave. **N p. 32 and Exc. J.**

Case No	Grave No	Date	No of Indiv.	Sex / Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
								Cph, ri,	fi, pa,			
51	28	N	1	NA	T	N	All	All sc, ri, v u sk m u dish bones o dish leg or arm o dish	ri, v	DA	P	Body walled in a recess sealed with stones and mud, found intact. Bones entirely rearranged. Some ribs and vertebrae absent. Bones placed under and around vessels. Skull found with face down and vertebrae under it (excavation journal). Site report states that skull was on top of all bones. Mandible under a dish. **N p. 32 and Exc. J.**
52	31	N	1	NA	T	N	All	All	sk	DA	P, Pa, Fl, cloth	Body sealed in recess with stones and mud, found intact. Bones entirely rearranged under and around vessels, skull absent. **N p. 32 and Exc. J.**

Case No	Grave No	Date	No of Indiv.	Sex / Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
53	G 2*	N	1	NA	T	N	All	All	U	D U	P (1 o hands + 11 o body)	Small and narrow pit. Bones totally rearranged. Hands found under vessel. 6 perfect and untouched vessels placed over the bones and 5 vessels over them arranged head to tail, undisturbed. **N p. 32**
54	729	N	1	NA	M	Y	skull, torso	N	sk, v	A	P, M, cloth	Body intact with exception of absent skull and 3 vertebrae. Body placed on a mat and cloth and covered in a mat. **N p. 27 and Exc. J.**

Summary

The majority of cases with displaced skeletal remains in Egypt were recorded at Naqada. This does not necessarily reflect a higher concentration of the practice at this site, but is more likely relative to the total number of burials in the cemetery. The affected burials constitute only about 2% of the cemetery (Table 1). The most common type of manipulation at Naqada was the displacement of skeletal remains.

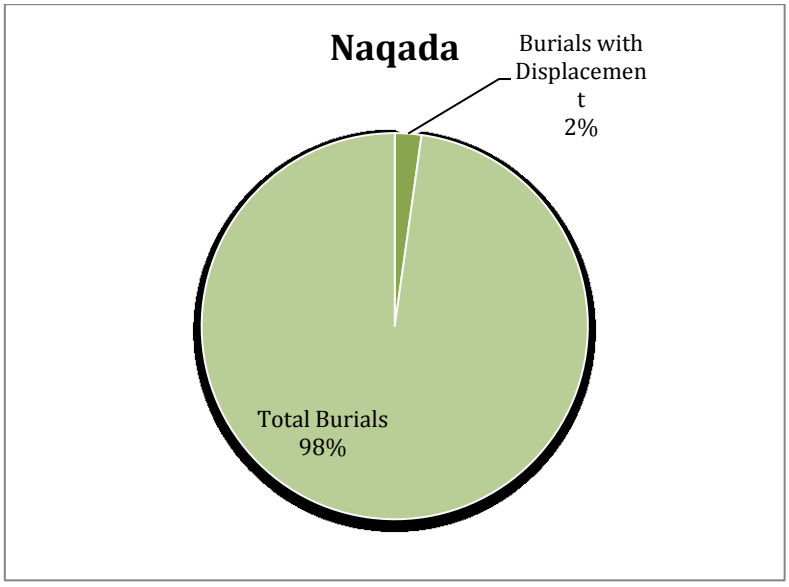

Table 1: Percentage of burials affected with displacement at Naqada

4. Gerza

The site of Gerza lies about 14 kilometers east of Fayum on the west bank of the Nile and was excavated by William M.F. Petrie, Geoffrey Wainwright and Ernest MacKay in 1911 (1912). One cemetery was discovered with around 280 burials mostly found intact (Petrie, Wainwright, and MacKay 1912, 5). The majority of the burials date to the Naqada II Period, with some dating to Naqada III and about 39 burials from the New Kingdom (Petrie, Wainwright, and MacKay 1912, 5; Stevenson 2009b, 281–295). Of these, the excavators identified twelve burials dating to the Naqada Period that contained deliberate skeletal displacement (Fig. 10), and which are the focus of this thesis.

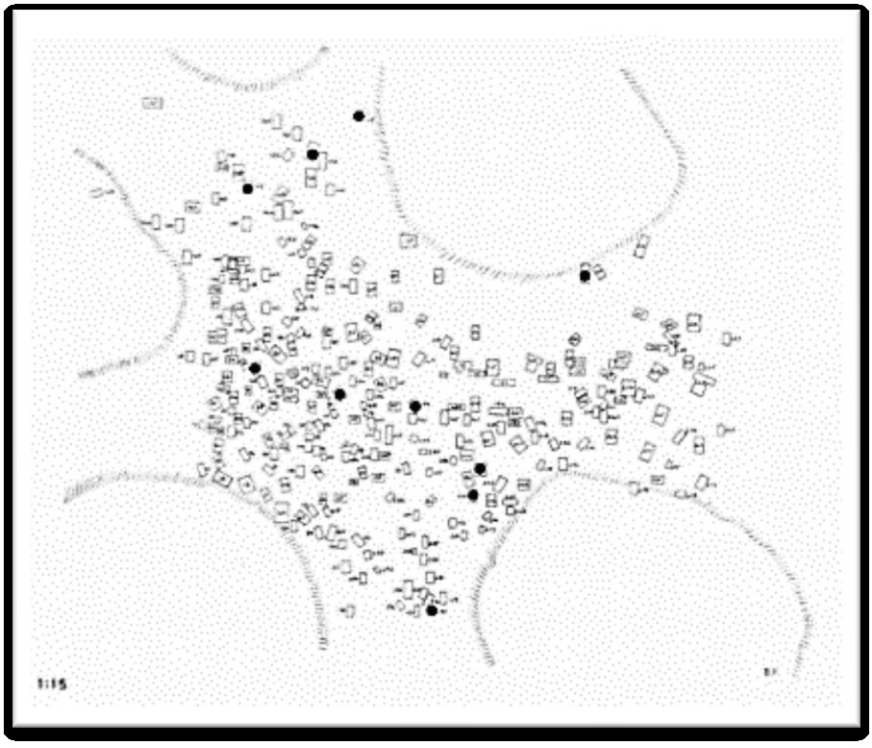

Fig. 10 Map of Gerza Cemetery with affected burials marked; Burial 171 is not included here, as it was not found on the published map
(Petrie, Wainwright, and MacKay 1912, XIII)
Courtesy of the Petrie Museum of Egyptian Archaeology, UCL

Affected Burials

Case No	Grave No	Date	No of Indivi.	Sex/ Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
1	**67**	N	1	NA	M	Y	Skull	sk, 1 vcer	N	D	P, Pa, B (lapis lazuli, limestone, gold, carnelian, iron, agate), Br harpoon (n feet), Mh, Iv	Body mostly intact. The skull was placed upright before the body and one cervical vertebra was shifted out of place. Necklace with beads of gold, iron, carnelian and agate found in situ on the neck, unaffected by movement of bones. Many valuable objects noted for being richest burial in cemetery. **G p. 5, 8 and Exc. J.**

Case No	Grave No	Date	No of Indivi·	Sex/ Age	Displ· Type	Pres· of Anat· Align·	Parts Affected	Displ· Bones	Absent Bones	Status of Bones	Grave Goods	Notes
											vessel (n sk)	
2	**142**	N	1	NA	M	Y	Feet	N	Tar, Mtar, Tph	A	P, Sv, Pa, Fl, B (in sk), lv pin (o sk)	Body intact except for tarsals, metatarsals and phalanges, which were absent from the burial· Burial was found with intact 2 inch coating of mud· Plenty of grave goods with at least 46 vessels· Beads possibly found inside skull based on excavation journal· **G p· 4, 8 and Exc· J·**
3	**123**	N	1	NA	M	Y	Torso	N	pe, Vlum	A	P, Sv, Re, Ma (n sk + hands	Body intact save for absent pelvis and lumbar vertebrae· Body state as in poor state of preservation in the excavation journal· **G p· 9 and Exc· J·**

Case No	Grave No	Date	No of Indivi·	Sex/ Age	Displ· Type	Pres· of Anat· Align·	Parts Affected	Displ· Bones	Absent Bones	Status of Bones	Grave Goods	Notes
											)	
4	**137**	N	1	NA	M	Y	Feet	N	Tar, Mtar, Tph	A	P	Body intact with exception of absent feet· **G p· 9 and Exc· J·**
5	**138**	N	1	NA (child)	M	Y	torso, legs, feet	R fe, frag pe, frag Mtar,	sa	DA	P, B (2 carnlian beads in sk)	Body mostly intact with exception of fragmented pelvis, absent sacrum, right femur slightly displaced and absent feet· Excavation journal states 2 carnelian discs inside head· **G p· 9 and Exc· J·**
6	**171 a (adult)**	N	2	NA (adult)	M	Y	torso, feet	pe, L Tar, Mtar, Tph	N	D	P	Two bodies, adult and child· Child's back to adult, and adult's hand laid under child, both in fetal position· Adult with displaced pelvis, which was placed on its feet· One foot slightly displaced· The child was entirely intact except for a single tooth found near the elbow· **G p· 6, 7, 9, iii and Exc· J·**

Case No	Grave No	Date	No of Indivi·	Sex/ Age	Displ· Type	Pres· of Anat· Align·	Parts Affected	Displ· Bones	Absent Bones	Status of Bones	Grave Goods	Notes
7	**171 b (child)**	N	2	NA (child)	M	Y	Teeth	To	N	D	P	Two bodies, adult and child· Child's back to adult, and adult's hand laid under child, both in fetal position· Adult with displaced pelvis, which was placed on its feet· One foot slightly displaced· The child was entirely intact except for a single tooth found near the elbow· **G p· 9 and Exc· J·**
8	**187**	N	1	NA	M	Y	hand	Mcar or Cph	N	D	P	Body entirely intact with exception of two bones from the hands, which were found placed by the lower arms· **G p· 9 and Exc· J·**
9	**200**	N	1	NA	M	Y	Torso	N	6 Vcer	A	P, M (osk), Ma	Body intact except 6 Vcer absent from the burial· Skull in situ, despite movement of the cervical vertebrae· A mat covered the skull and small vessels above the head were in situ· **G p· 9 and Exc· J·**
10	**206**	N	1	NA	T	N	All	All	N	D	P (ip of feet)	All bones of body found but slightly shifted: the tibiae and fibulae were inverted but in correct position and the

Case No	Grave No	Date	No of Indivi·	Sex/ Age	Displ· Type	Pres· of Anat· Align·	Parts Affected	Displ· Bones	Absent Bones	Status of Bones	Grave Goods	Notes
												feet bones scattered near the tibia, hands and knees· The skull was placed between shoulder blades with 3 vertebrae attached, and beads were found under it· Vessels placed where feet would have been· Body placed under vessels, which were found undisturbed· Skeleton may have been reconstructed anciently· **G p· 9 and Exc· J·**
11	**280**	N	1	NA	M	Y	Torso, Legs	Mtar or Tph	Mtar or Tph, L pe	DA	P	Burial exceptionally small for the body· Body intact except for broken ends of tibia, some foot bones in place· Body on left side but left pelvis absent· The right pelvis on top was broken· **G p· 9 and Exc· J·**
12	**284***	N	1	NA	M	Y	hand	Mcar or Cph	N	D	P	Body seemingly intact with exception of left hand bones, which were scattered near the lower arm· **G p· 9**

Summary

The affected burials at Gerza represent about 5% of the cemetery (Table 2). The only type of manipulation documented by the excavators was the displacement of skeletal remains.

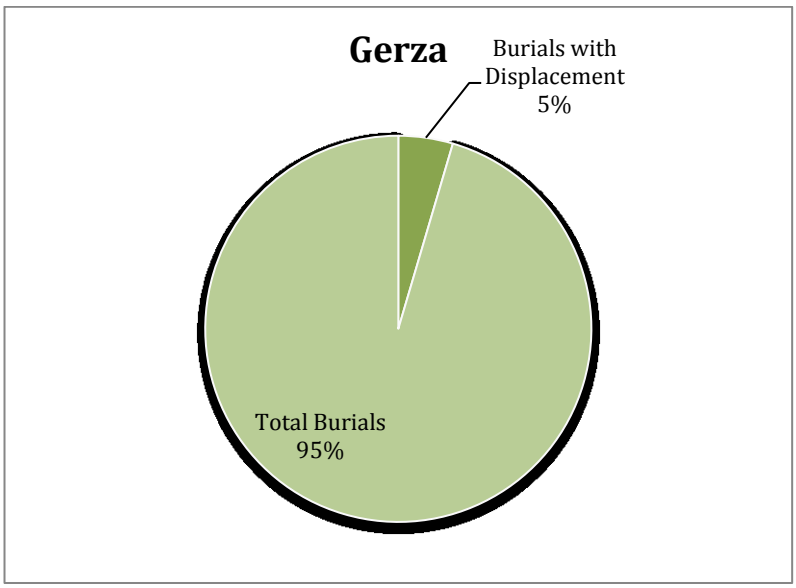

Table 2: Percentage of burials affected with displacement at Gerza

5. Tell El Farkha

The site of Tell El Farkha is located about 120 kilometers northeast of Cairo and was first identified in 1987 by the Italian Archaeological Mission to the Eastern Nile Delta (Chlodnicki, Cialowicz, and Maczynska 2012, 10). It was excavated by Rodolfo Fattovich and Sandro Salvatori from 1989 to 1995 (Chodnicki, Fattovich, and Salvatori 1992) and then by Marek Chlodniciki and Krzysztof M. Cialowicz from 1998 to the present (Chlodnicki, Cialowicz, and Maczynska 2012, 10). As of 2012, a total of about 119 mostly intact burials had been excavated at Tell El Farkha (Debowska-Ludwin 2012b, 39), originating from two cemeteries associated with the nearby settlements named the Western and Eastern Kom. The burials date from the Naqada III Period to the early Old Kingdom, or about the 3rd to 4th Dynasties (Debowska-Ludwin 2012a, 53, 72), but only those of Naqada III date will be part of this thesis. In fact, all the burials with displaced remains date exclusively to the Naqada III Period (Fig. 11).

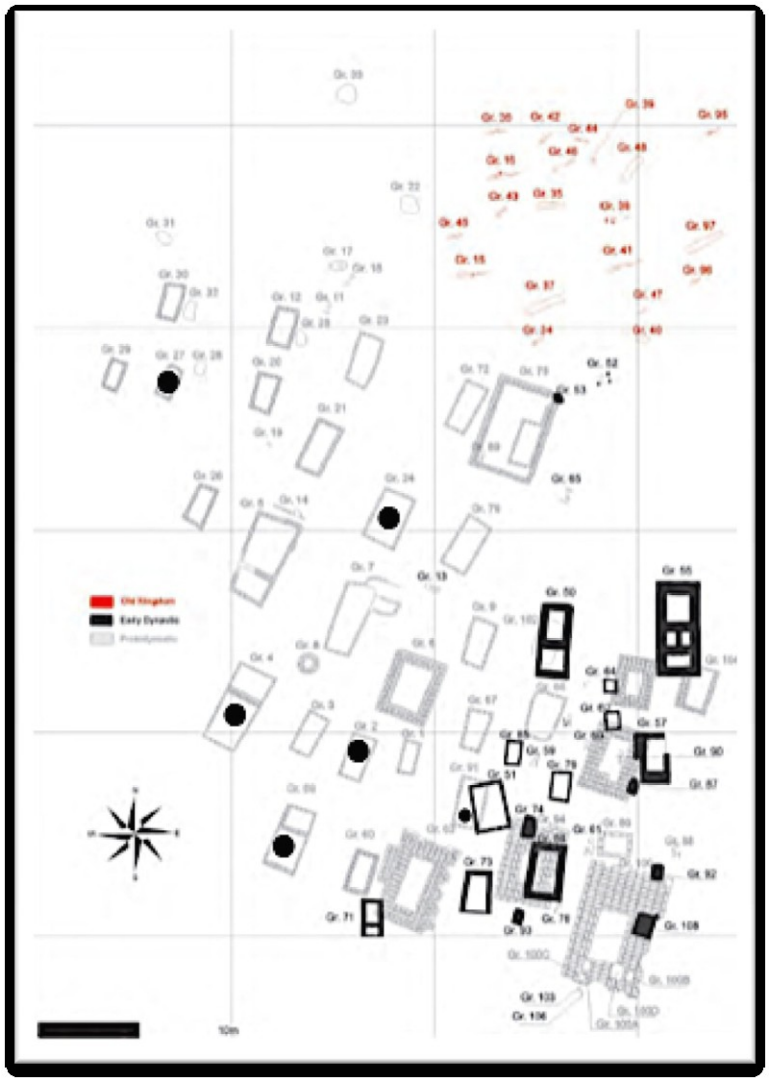

Fig. 11 Map of Tell El Farkha Cemetery with affected burials marked; the location of Burial 114 was not found in the publication and, thus, not included in the plan.
(Chlodnicki, Cialowicz, and Maczynska 2012, 54)
Courtesy of the Poznan Archaeological Museum

Affected Burials

Case No	Grave No	Date	No of Indiv.	Sex/ Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
1	2	NIII B/C1-C2	1	F/30-40	P or T?	N	Legs, All?		N	D	P, Sv, Pa, B, M, Bo vessels, ceramic cone, pestle	Grave secured with rectangular layer of mud brick and liquid mud. Body lying on its back. Legs displaced between vessels. Argued that the skeleton was moved. 434 fragments of animal bones and broken vessels near burial indicative of funerary feast. **T2009 p. 459; 2012a p. 56; 2010d p. 10, 12; 2010a p. 375-376**
2	**4***	NIII B/C1-C2	1	M/30-40	M	Y	skull, torso	sk, v, Cph Or Tph	N	D	P, Sv, frag Pa, B, M	Two-chamber tomb, entire tomb covered with a mat, skeleton in southern chamber on mud brick structure. Skull displaced and crushed, vertebrae in front of the body and phalanges scattered around body. **T2009 p. 460; 2012a p. 56, 57,**

Case No	Grave No	Date	No of Indiv.	Sex/ Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
												62; 2010d p. 7, 12; 2010a p. 375-376
3	24	NIII B/C1-C2	1	F/20-25	P or T?	N	skull, legs	m (fe, tib, fib, Tar, Mtar, Tph)	N	D	P, M, stone grinder, Bo implements	Entire grave secured with mat. Liquid mud preserved tomb intact. Body stated as "partially dislocated"(2009) and as "limbs or jaws dislocated" (2012a). T2009 p. 467; 2012a p. 56; 2010d p. 7, 10; 2010a p. 375-376
4	27*	NIII B/C1-C2	1	M/ Adult	P?	Y			N	D	P	Stated as disturbed due to state of skeleton, but described as having no signs of robbery (2009 p. 467). Body said to be dislocated (2009 p. 467) and partially disturbed with no signs of plundering (2012a p. 64). T2009 p. 467; 2012a p. 64; 2010a p. 375-376

Case No	Grave No	Date	No of Indiv.	Sex/ Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
5	69	NIII B/C1-C2	1	F/30-40	T	N	All	All	N	D	P, Cl spinning weight, Cl ball	Two-chamber tomb, one chamber covered with mat roofing. Body described as 'skull on top of bones' (2010b p. 154) and 'pile of bones with skull on top' (2010a p. 375). **T 2010b p. 154; 2012a p. 65; 2010a p. 375**
6	**91**	NIII B	1	M/24-30	M	Y	skull, legs	fe, Tar o st, m	N	D	P, Sv, Bo sp (in P), 2 Co tools	Body stated as femurs displaced, ankle bone placed over the breastbone and the mandible at a distance from the skull. **T2010d p. 10; 2012a p. 39; 2010b p. 150; 2010a p. 375-376**
7	**114**	NIII B	1	Adult	P or M?	U	skull, legs	m (fe, tib, fib, Tar, Mtar, Tph)	N	D	P, Sv, Pa, B, M, greywacke grinder	Liquid mud poured in chambers for security, preventing looting, but affecting condition of the bones. Body found with 'disordered limbs' **T2010a p. 376**

Summary

At Tell El Farkha, 7 burials contained displaced skeletal remains, which represents about 6% of the tombs thus far excavated in the cemeteries (Table 3). The only manipulation documented at this site was the displacement of skeletal remains.

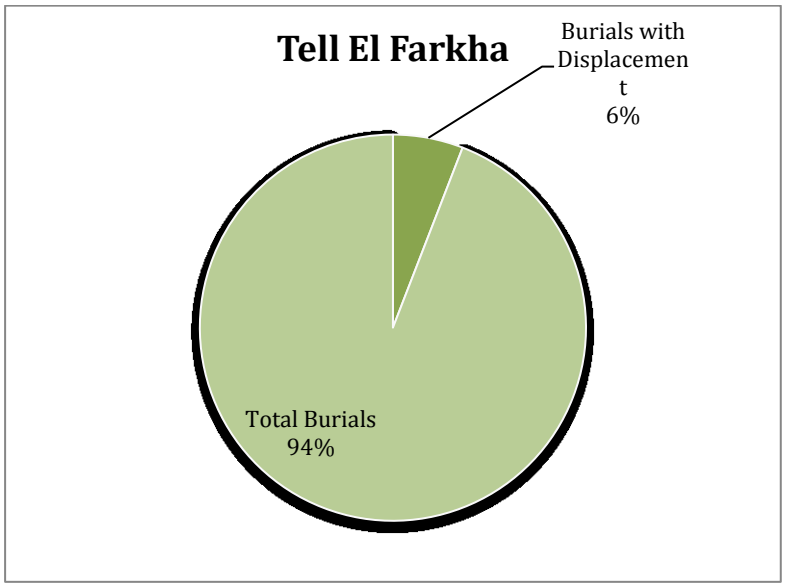

Table 3: Percentage of burials affected with displacement at Tell El Farkha

6. Adaima

Adaima is situated 8 kilometers south of Esna on the west bank of the Nile. It was first discovered and partly excavated by Jacques de Morgan in 1908 (1912), and was subsequently excavated by Fernand Dobono in 1973 (Crubezy, Duchesne, and Midant-Reynes 2008, 290). From 1989 to 2005, the site was excavated by Beatrix Midant-Reynes (Crubezy, Duchesne, and Midant-Reynes 2008, 290).

Two cemeteries were identified at Adaima, a Western and an Eastern Cemetery, with a total of about 220 burials dating from Naqada I to the 3rd Dynasty (Crubezy, Duchesne, and Midant-Reynes 2008, 295). The Western Cemetery was older and contained both adult and child burials. It was found mostly disturbed by looters (Crubezy, Janin, and Midant-Reynes 2002, 438, 442). The Eastern Cemetery had a larger percentage of child burials than adults, and was mostly intact (Crubezy, Janin, and Midant-Reynes 2002, 438). Only 3 burials at Adaima were identified as containing displaced skeletal remains (Fig. 12).

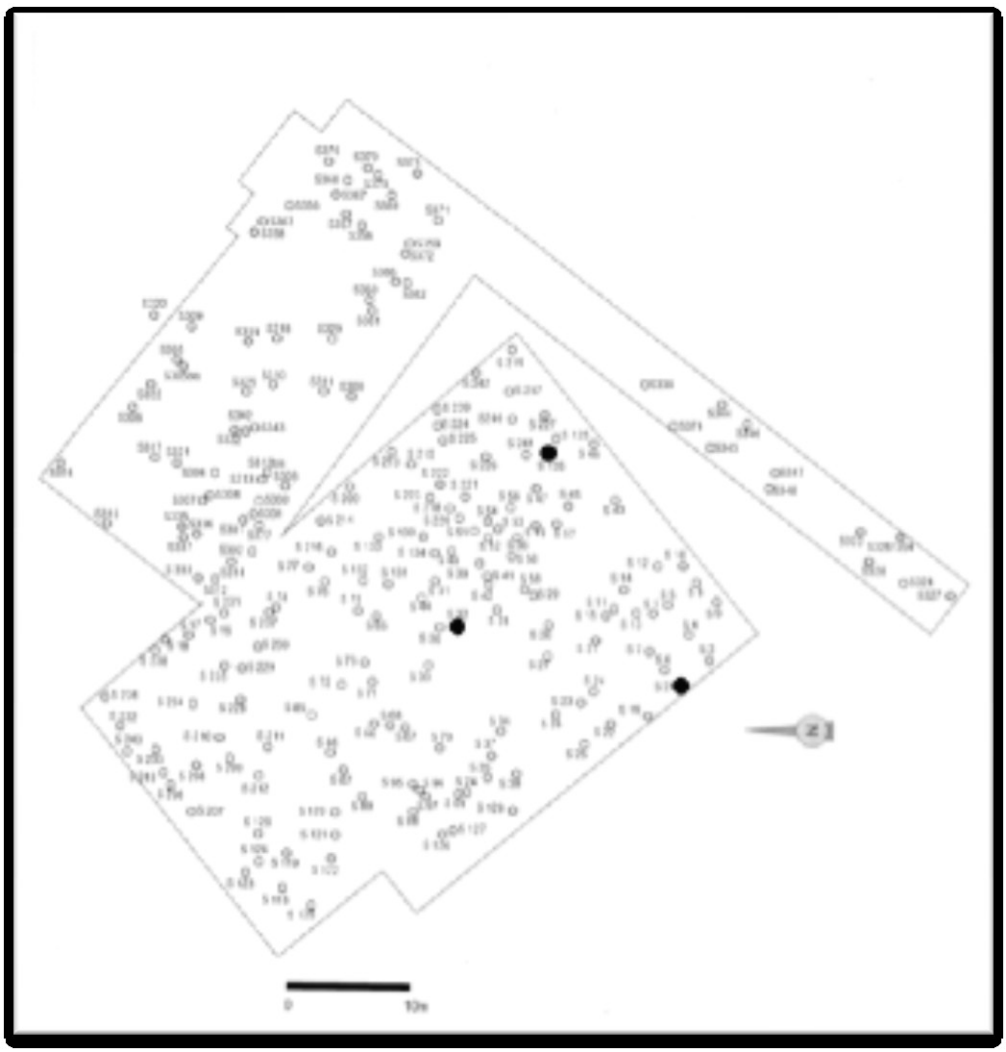

Fig. 12 Map of Adaima Cemetery with affected burials marked
(Crubezy, Janin, and Midant-Reynes 2002, 11)
Courtesy of the Institut francais d'archeologie orientale

Affected Burials

Case No	Grave No	Date	No of Indiv.	Sex/ Age	Displ. Type	Pres. of Anat. Align.	Parts Affected	Displ. Bones	Absent Bones	Status of Bones	Grave Goods	Notes
1	S32	U	1	M/30-60	T?	N	All	All	U	D	N	Stated as "long bones in form of bundle". Not clear if articulation was present. Suggest secondary burial. **A p. 93**
2	S135	U	1	F/20-30	M	Y	skull, torso, hands	N	sk, Vcer, Car, Mcar, Cph	A	P, Lb, M	Body originally placed inside leather bag. Skull, cervical vertebrae and hands absent. Excavators conclude that it was plundered. **A p. 296-297, 481**
3	S2	NIID 2	1	F/40-60	M	Y	skull	N	Sk	A	P, Lb	Body originally placed in leather bag. Skull absent. **A p. 23-25, 481**

Summary

The affected burials represent about 1% of the total tombs excavated in the cemeteries of Adaima (Table 4). However, the possibility of more burials with evidence for skeletal displacement is present (see Sources and Methodology Chapter 2). A number of manipulations were documented at Adaima. There were three cases of individuals with their throats slit probably to sever the head (Crubezy, Janin, and Midant-Reynes 2002, 483), four corpses that were dismembered (Crubezy, Janin, and Midant-Reynes 2002, 481), and one body that was wrapped in an early attempt at mummification (Crubezy, Janin, and Midant-Reynes 2002, 456, 476).

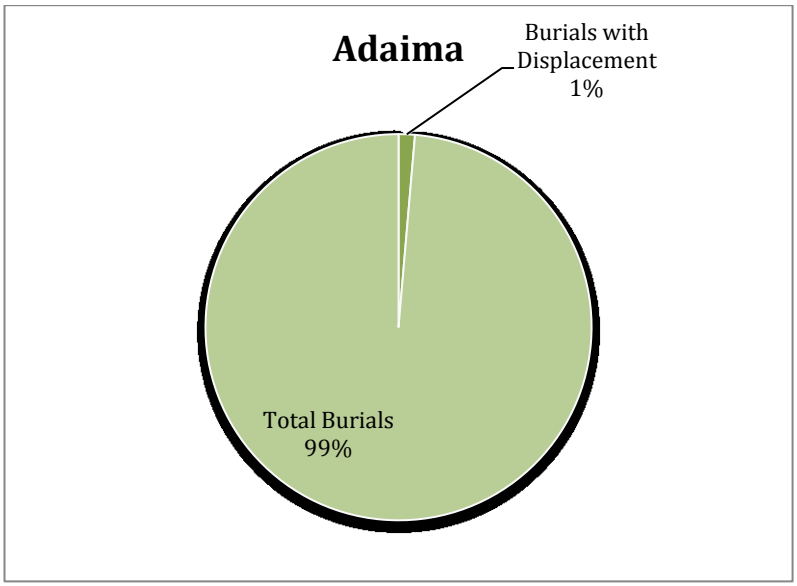

Table 4: Percentage of burials affected with displacement at Adaima

7. Discussion and Conclusions

The evidence from the four sites (Ch. 3-6) indicates that the deliberate manipulation of bodies was a funerary feature of the Predynastic period that was eventually discontinued. Some patterns are observable in the rearrangement of the bones, common to all of these cemeteries. These include the gathering of long bones, grouping of skulls, scattering of small bones and the absence or isolated burial of skulls (Roksandic 2002, 112; Duday 2006, 46). The scattering of small bones, however, sometimes occurs due to natural causes, such as flooding or insect activity, and these must be taken into consideration when viewing the evidence. Generally, however, these alterations of a skeleton are considered obvious patterns that indicate human intervention led to the displacement of the skeleton in a particular arrangement that held some significance or meaning in that culture.

The Evidence

These arrangements were found present in some of the burials investigated. In burial 880 from Naqada, the long bones of a minimum of four individuals were laid parallel, in a row across the center of the grave from one side of the chamber to the other, while the cranium and post-cranial bones were piled south of the long bones (Fig. 13) (Petrie and Quibell 1896, 1:22, LXXXIII). Similarly, the long bones of a minimum of four individuals were also interred in burial 594 at Naqada and were mostly laid parallel in a row across the grave (Fig. 14) (Petrie and Quibell 1896, 1:LXXXIII). An individual in burial T 19 from Naqada, was found with only the lower portion of the spine, the pelvis and legs in place (Petrie and Quibell 1896, 1:20, LXXXII). While the rest of the bones of the skeleton

were found dispersed within the burial, the arm bones were carefully laid parallel on the south side of the grave (Petrie and Quibell 1896, 1:20, LXXXII). Laying bones in parallel or gathering specific bones together is the result of a deliberate act. Moreover, the long bones, which could be perceived as similar in length and shape, are singled out and sorted in these displacements. The skeleton appears to have been reconstructed based on a perception of the bones in the skeleton, the meaning of which is lost to us.

The fact that four individuals were found in burials 880 and 594 makes them more intriguing. The individuals could have all died at the same time or separately and their bones were later collected and buried together, or the grave was re-opened and individuals were added into the burial. The re-assembly of all their bones in parallel alignment can be interpreted as rather than seeing them as individual people, they had become a collective assembly of a 'body' or 'ancestors' as seen in some burials in Neolithic Britain and Ireland (Fowler 2010, 10-11). Collective deposits of individuals were found placed together and laid in parallel, which is believed to indicate that this group of individuals had ceased to be seen as separate individuals and were viewed as a collective grouping of ancestors. Though the sorting of long bones is a practice that is present in ancient cultures that deliberately displace bones, in the burials investigated here it was only found at Naqada.

Fig. 13 Naqada Burial 880
(Petrie and Quibell 1896, 1:LXXXIII)
Courtesy of the Petrie Museum of Egyptian Archaeology, UCL

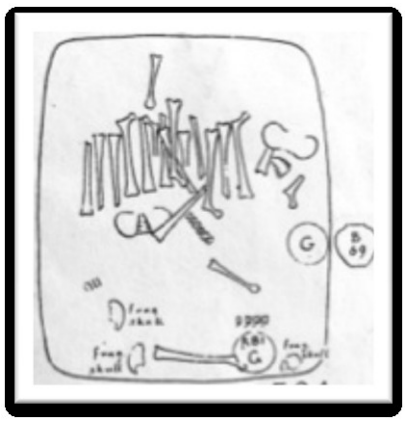

Fig. 14 Naqada Burial 594
(Petrie and Quibell 1896, 1:LXXXIII)
Courtesy of the Petrie Museum of Egyptian Archaeology, UCL

The retrieval of skulls from burials and their reburial separately has been documented in some ancient cultures, as well (Fowler 2010, 8,9; Bruck 2006, 81–82; Talalay 2002, 11). The evidence from Predynastic Egypt on the manipulation of the skull is diverse and may display multiple causes. It may represent instances of the decapitation of an individual as punishment when alive, or of a head severed from a corpse, or one that was pulled off of a dried or naturally mummified body as a deliberate manipulation of the corpse. Some examples from Adaima and Hierakonpolis have cut marks on the cervical vertebrae, or neck,

indicating that the head was severed (Crubezy, Janin, and Midant-Reynes 2002, 483; Dougherty and Friedman 2008, 320). It is speculated that this practice may have been a funerary ritual that sought to disarticulate the body to enable its reconstruction in imitation of the god Osiris (Maish 2003, 18–19). Other examples, however, do not exhibit any cut marks on the skull or neck vertebrae. In these cases, it may be suspected that the skull was removed from an already decomposed body. This becomes more plausible in light of the fact that the skull and mandible are among the first parts of the body to separate from the rest of the skeleton during decomposition (Roksandic 2002, 102).

The skull was the most manipulated part of the body at Naqada (Table 5). In 98% of the individuals at Naqada, the skull was displaced or removed from the burials, alone or in combination with other bones. At Gerza, only one individual displayed a manipulation of the skull out of the 12 individuals investigated. At Tell El Farkha, 3 out of the 7 individuals had the skull manipulated, alone and in combination with other bones. Finally, 2 individuals out of 3 from Adaima also displayed a manipulation of the skull. While the significance that was attributed to the skull remains unknown, it appears that it was of importance when the skeleton was manipulated.

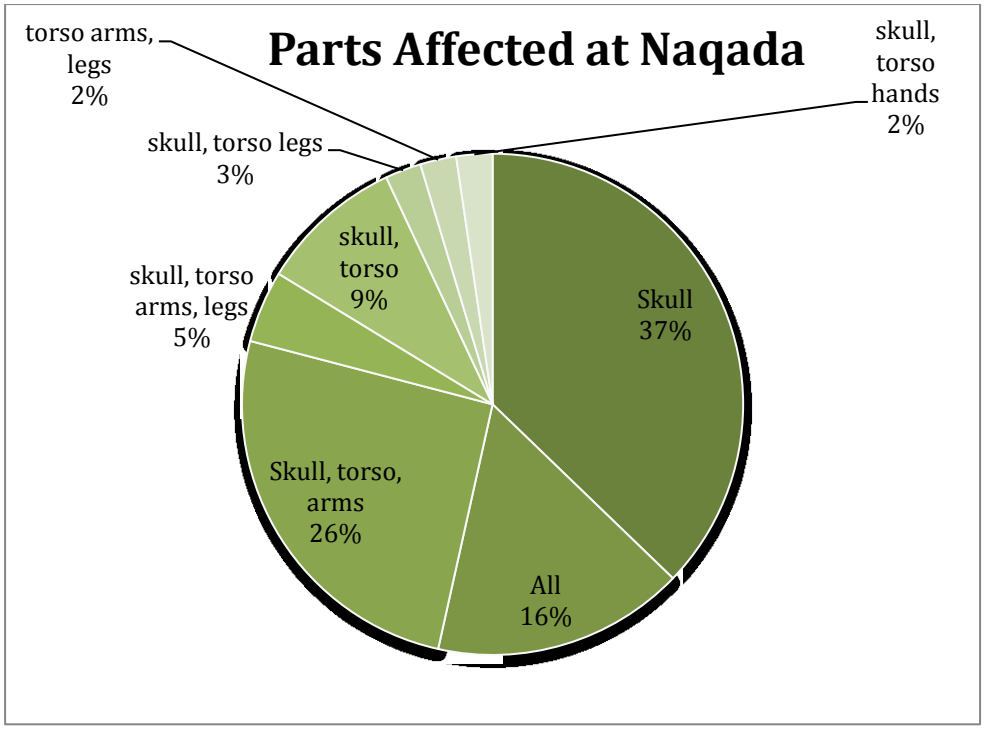

Table 5: Parts of the body affected at Naqada

At Adaima, burials S135 and S2 were single inhumations of an individual placed in a leather bag. Both burials were intact save for the skull (Crubezy, Janin, and Midant-Reynes 2002, 481). The excavators observed that the skull was removed with great care so as not to affect the rest of the skeleton (Midant-Reynes et al. 1996, 96). In the absence of cut marks on the cervical vertebrae, or neck, the excavators believe that the skull was removed after the body had decomposed into a skeleton (Midant-Reynes et al. 1996, 96). They also state that when skulls are affected due to looting, they are usually found within the grave and sometimes broken (Crubezy, Janin, and Midant-Reynes 2002, 481). A deliberate and careful retrieval of the skull from some burials was also recorded at Hierakonpolis (Wrobel 2001, 12). The excavators at Hierakonpolis, noting the care that was taken in the retrieval of the skull, speculate on whether it was family members of the deceased who dug up the skull (Wrobel 2001, 12).

Skulls that were absent from burials were recorded in a number of other burials. In burials 664, 875, 1388, 1437, 1480, 1583, 37, 31 and 729 at Naqada, the skull was not found in the burial (Petrie and Quibell 1896, 1:26–30, 32; Petrie and Quibell 1894-1895). Burials 875 and 1583 were double inhumations where both skeletons were completely intact with the exception of the absent skulls (Petrie and Quibell 1896, 1:27, 29). The burials display varying degrees of manipulation for other bones in the skeleton, yet in all of them, the skull was noted as absent from the grave.

In additional examples, skulls were moved from the original location, but were left within the grave. At Naqada, the skull was displaced in burials 124, 343, 660, 867, 845, and 1505 (Petrie and Quibell 1896, 1:25, 26, 27, 31). In burial 1505, two intact and articulated individuals were interred in one grave, with both their skulls laid together on one side of the burial (the publication does not specify which side of the burial) (Petrie and Quibell 1896, 1:31). A single case of a displaced skull was documented at Gerza in burial 67, where the skull was placed upright on its base (Fig. 15) (Petrie, Wainwright, and MacKay 1912, 8; Petrie, Wainwright, and MacKay 1910-1911). At Tell El Farkha, in burials 4, 24, 91 and 114, all intact burials, the skull was found displaced within the grave and no cut marks were observed on the bones.

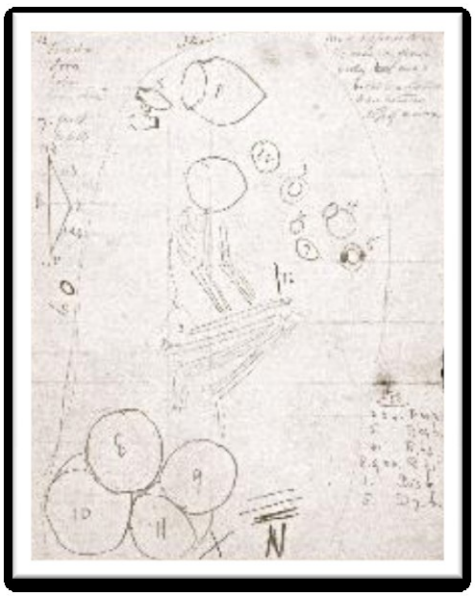

Fig. 15 Gerza Burial 67
(Petrie, Wainwright, and MacKay 1910)
Courtesy of the Petrie Museum of Egyptian Archaeology, UCL

The burial of isolated skulls has also been recorded at Adaima and Tell El Farkha. Though these cases were not included in the database of this study as they presented scant skeletal evidence to decipher the cause behind the actions, they provide additional evidence on the manipulation of the skeleton, specifically the skull. At Adaima, a skull was discovered buried in a pit in the Eastern Cemetery (Crubezy, Janin, and Midant-Reynes 2002, 481-482). The excavators state that it does not appear to belong to the burials mentioned earlier, which were missing skulls, and that its deposition separately appears to have been deliberate (Crubezy, Janin, and Midant-Reynes 2002, 482). Similarly, only skulls were found buried in graves 14 and 19 at Tell El Farkha (Debowska-Ludwin 2010a, 377). In burial 14, the skull was discovered placed inside a pottery vessel (Debowska-Ludwin 2010a, 377).

In Prehistoric Europe and the Levant, where similar evidence was discovered (Cauvin 1994; Kenyon 1957; Bienert 1991; Wright 1988), the

interpretation of skulls absent from burials has been explained as a form of ancestor veneration. It has been proposed that the bones were retrieved from the burials, after the decomposition of the body into a skeleton, and kept by the community, reburied in other locations, or interred with other individuals, in an effort to create or maintain ties with the ancestors (Fowler 2010, 13; Triantaphyllou 2008, 151; Bruck 2006, 82). Skulls, and fragments of skulls, have been recovered from settlements where it is assumed that they were taken from the burial and kept by the community (Fowler 2010, 13). Bone circulation is the term used to describe cultures that deliberately fragment the body, by retrieving bones from a burial, which are circulated or kept within the community (Fowler 2010, 151; Triantaphyllou 2008, 151; Bruck 2006, 82). In an example from Adaima, the frontal part of the skull of a young individual was discovered buried in the settlement (Crubezy, Janin, and Midant-Reynes 2002, 482). It was found a few centimeters below an occupation zone, between two different levels of occupation (Crubezy, Janin, and Midant-Reynes 2002, 482; Midant-Reynes and Buchez 2002, 77). The skull fragments were wrapped in a mat, in an assemblage that contained three tail vertebrae of a bovid, and belonged to a large adolescent or a young adult (Crubezy, Janin, and Midant-Reynes 2002, 482; Midant-Reynes and Buchez 2002, 77). A few feet below the mat, additional skull fragments, of the upper part of the skull, or parietals, were buried along with a tuft of hair[6] (Midant-Reynes and Buchez 2002, 77). The excavators assume that both these deposits were related and possibly belonged to the same individual (Midant-Reynes and Buchez 2002, 77). An analysis of the skull fragments revealed that

[6] For further information on the skull fragments discovered in the settlement and images see: *Midant-Reynes and Buchez* 2002, pages 77-78 and 121.

they were dry and were, most likely, retrieved from a skeleton and not a corpse (Midant-Reynes and Buchez 2002, 77). They believe that the deposit was intentional and displays a respect towards the human remains. The excavators are uncertain about the purpose of this deposit. They speculate that the bovid bones may represent an offering to the deceased, although bovid tail bones were never found in any other tomb in the cemetery (Midant-Reynes and Buchez 2002, 77). They also wonder whether a practice of retrieving bones from burials existed in the Predynastic community at Adaima, as a part of a cult of ancestor worship, and that the skull was kept in the community for that purpose (Midant-Reynes and Buchez 2002, 78). This raises the possibility of a similar culture of bone circulation possibly taking place in Predynastic Adaima, where some bones were deliberately and carefully retrieved and retained by the community. The isolated skull burials may then be examples of skulls that were kept in the community for some time and later reburied. Perhaps other bones that were missing from some burials also might have been retained by the community.

Other examples equally demonstrate the deliberate arrangement of some bones in the skeleton, especially the skull. In burials T5 and 57 at Naqada, the skull was propped on top of a brick (Petrie and Quibell 1896, 1:19, 25; Petrie and Quibell 1894-1895). Burial T5 exhibits various treatments of the skull and was noted as intact by the excavator despite the disarray of bones (Fig. 16) (Petrie and Quibell 1896, 1:32). A minimum of six individuals were interred together (Petrie and Quibell 1896, 1:19; Petrie and Quibell 1894-1895). Some bones were piled together, while others were scattered with pottery vessels in the center of the tomb (Petrie and Quibell 1896, 1:LXXXII; Petrie and Quibell 1894-1895). On the

south wall of the tomb, about 10 pottery vessels were found intact, upright, lining the tomb wall with one skull among them, placed on a single brick (Petrie and Quibell 1896, 1:32; Petrie and Quibell 1894-1895). Some long bones were laid roughly parallel, near the vessels. The skulls were found in a variety of conditions, with one articulated with the mandible, one missing the front and with holes in the side, one broken and with a 'splint bone stuck through it', and beads and malachite laid inside and under it, and finally one placed on top of an oval shell pendant (Petrie and Quibell 1896, 1:32). The examples of the skulls with the splint bone and the other with holes on its side may indicate that they were kept by the community, where they served some kind of purpose and were later reburied. In other burials, skulls were placed on top of a pile of vessels, as in burials T52 and 845 at Naqada (Petrie and Quibell 1896, 1:24, 30; Petrie and Quibell 1894-1895). In yet other burials from Naqada, burials 541, 29 and 38, the skulls were deliberately placed onto a pile of stones (Fig. 17) (Petrie and Quibell 1896, 1:31; Petrie and Quibell 1894-1895). In burial B110 at Naqada, a pile of wood was placed on an otherwise completely intact and articulated skeleton, and the skull on top (Fig. 18) (Petrie and Quibell 1896, 1:24; Petrie and Quibell 1894-1895).

Fig. 16 Naqada Burial T 5 with skulls marked
(Petrie and Quibell 1894)
Courtesy of the Petrie Museum of Egyptian Archaeology, UCL

Fig. 17 Naqada Burial 38 with skull marked
(Petrie and Quibell 1894)
Courtesy of the Petrie Museum of Egyptian Archaeology, UCL

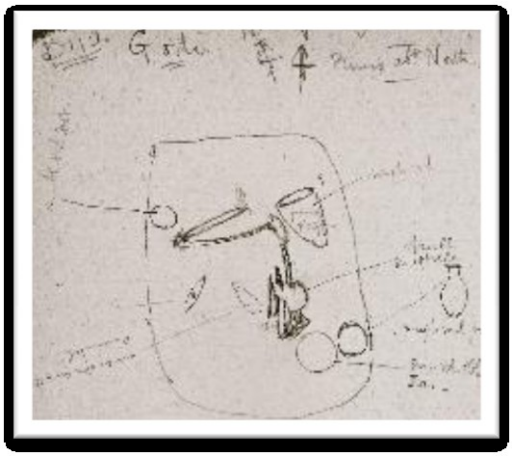

Fig. 18 Naqada Burial B110
(Petrie and Quibell 1894)
Courtesy of the Petrie Museum of Egyptian Archaeology, UCL

In five burials at Naqada, some other object replaced the skull. In burials 227, 1377 and 1437 at Naqada, Petrie records finding skulls replaced by vessels placed above the cervical vertebrae of skeletons. In burials 227 and 1377, the skull was placed to one side within the burial, whereas in 1437, the skull was completely absent from the burial (Fig. 19) (Petrie and Quibell 1896, 1:28, 30; Petrie and Quibell 1894-1895). In another grave, burial 845, a large pottery bowl was found in place of the skull, with smaller intact vessels placed within it, and the skull placed on top of them (Petrie and Quibell 1896, 1:30). In burial 1480, an ostrich egg, incised with two bovid figures, replaced the skull with no evidence for the skull in the burial (Petrie and Quibell 1896, 1:28). In only two examples was the skull absent from the burial, suggesting that it was never interred in the first place or was subsequently removed from the burial. In the other cases, the skull was placed within the burial, even though its place was substituted with another object.

It is uncertain when the head was severed from these bodies and, therefore, it is not clear when the object was substituted for the skull. Perhaps

some individuals were decapitated and were buried with the head already severed. The object may then have been placed in that position to symbolically represent the severed head. However, it is also possible that the head was detached from a decomposing body or a skeleton in a subsequent ritual where the burial was re-opened. The objects replacing the skull may then have been part of a ritual where substituting an object for the skull held some significance.

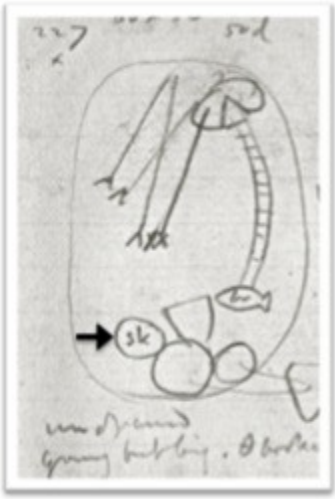

Fig. 19 Naqada Burial 227 with skull marked
(Petrie and Quibell 1894)
Courtesy of the Petrie Museum of Egyptian Archaeology, UCL

While the skull revealed itself to be the most manipulated part of the body at Naqada, other parts of the body were also affected in the skeletons investigated in this study (Table 5, 6, 7, 8). The wide range of the parts of the body that were manipulated, as displayed in the tables, indicates that the activity altering these skeletons was highly variable. This suggests that the ritual of altering the bones of a skeleton did not follow a specific formula.

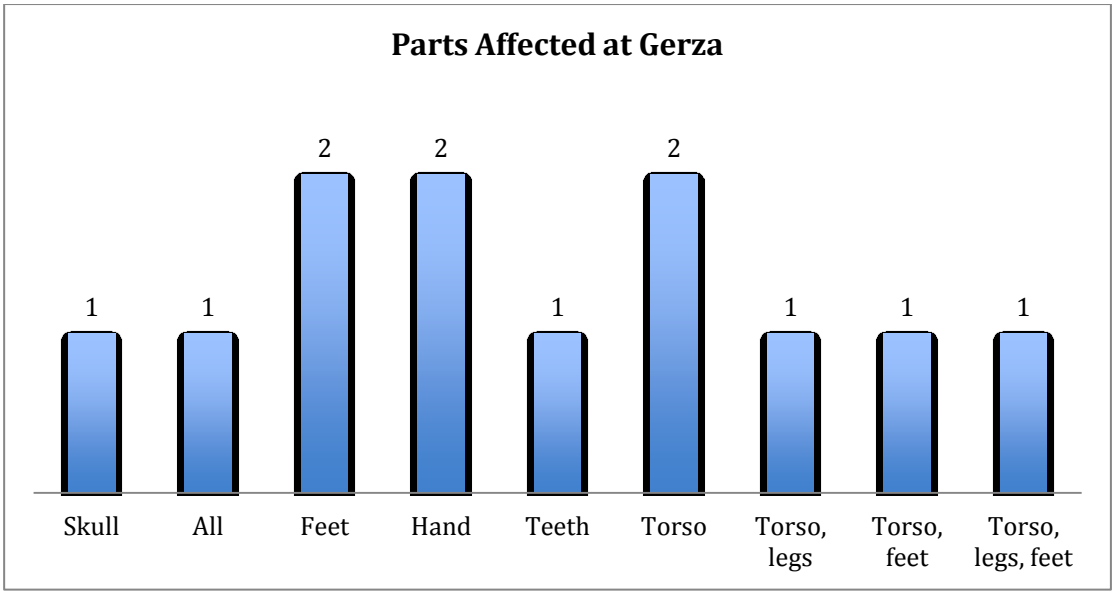

Table 6: Parts of the body affected at Gerza

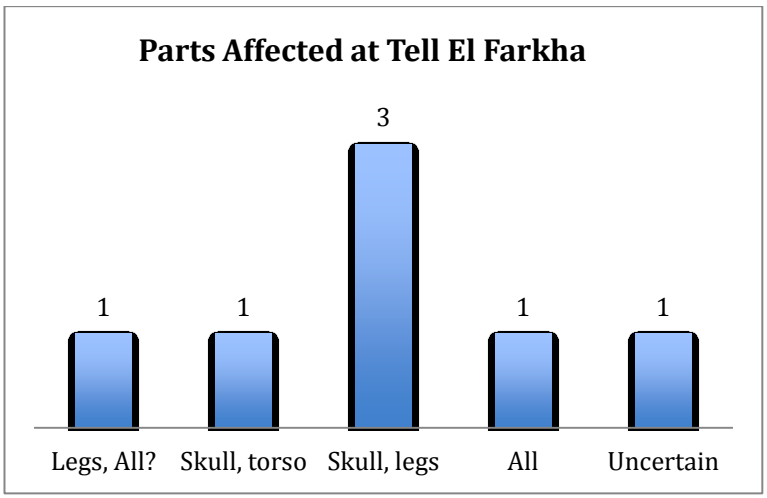

Table 7: Parts of the body affected at Tell El Farkha

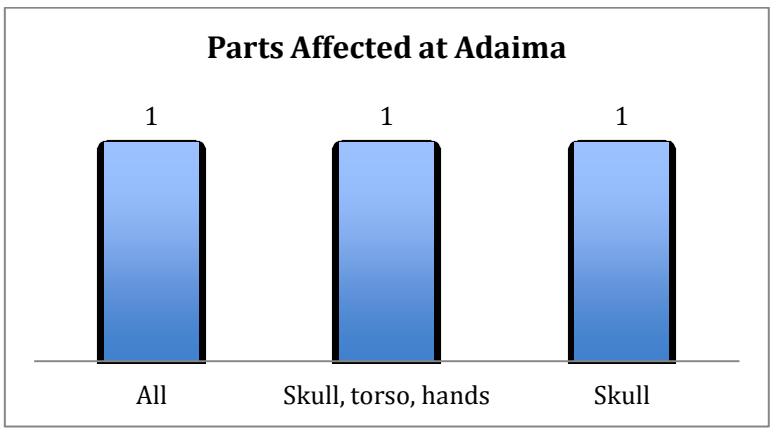

Table 8: Parts of the body affected at Adaima

The actions affecting the skeleton, whether to displace bones, to remove them from the burial, or to both displace and remove bones, appear to have been almost equally as likely in the activities conducted. At Naqada, 30% of the individuals had absent bones, 28% had bones that were displaced within the burial and 17% had both displaced and bones from the skeleton. At Gerza, four individuals were recorded with absent bones, six with displaced bones and two with both absent and displaced bones. At Tell El Farkha, all the individuals were recorded with displaced bones; and at Adaima one individual contained displaced bones and two individuals had absent bones. The patterns, here again, reflect a highly variable activity where removing or moving a bone were equally possible.

The cause behind the activities that affected these skeletons is not certain. However, the intentional placement of bones and objects in relation to the body, and the treatments afforded to the skull suggest that with regards to at least some, if not all the burials, the manipulation of these individuals was deliberately made due to human activity. No revealing patterns, however, were apparent in which part of the body was most frequently manipulated, aside from the skull at Naqada, or whether removing or moving bones was more commonly practiced. This suggests that while the manipulation of bones in some kind of funerary ritual may be proposed with regards to these burials, the actions of manipulating the skeleton were highly variable.

The majority of burials affected with displacement in all four sites were minimally affected meaning only five bones or less, were affected by movement or removal in a skeleton (Table 9). Those affected with total displacement, where most of the skeleton was absent or dispersed in the burial, could be cases of

individuals that were exposed or buried elsewhere prior to being interred in their final burial, or people who died far and were transported to their resting place. A similar argument can be made for those affected with partial displacement, the proposition then being that their skeletons were reassembled in the grave. However, those affected minimally, with only few bones shifted out of position or removed support the argument that these skeletons were most likely manipulated within their burials. This is further confirmed by the presence of anatomical alignment, or bones of the skeleton that were unaffected by any movement, that was documented in in these burials. This data suggests that the most commonly practiced burial activity most likely entailed re-opening the burial of a decomposed individual and altering the skeleton, whether by moving the bones or removing them altogether. A ritual may have accompanied these actions with the possibility of objects being added or removed from the burial setting, however, the existence of rituals can only be speculated in the absence of evidence.

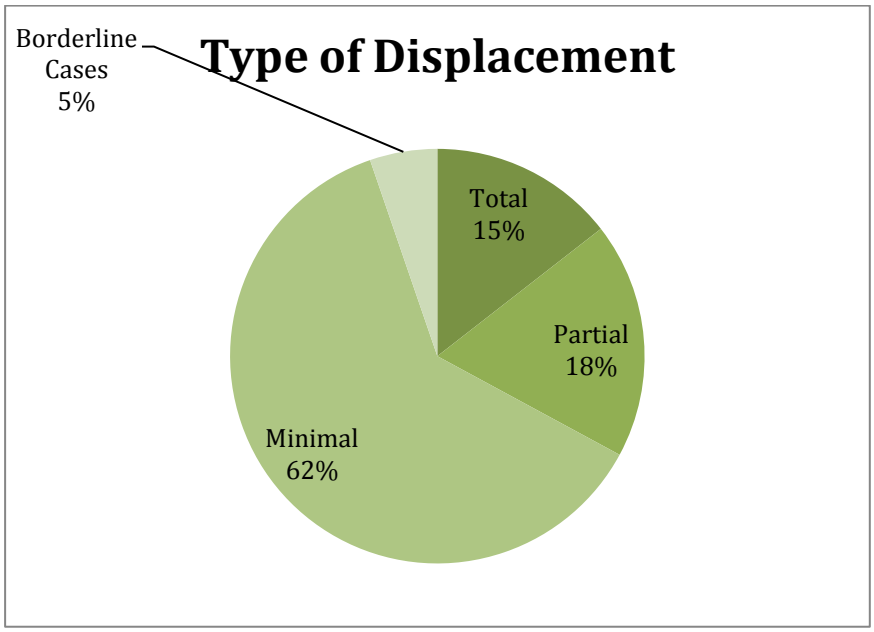

Table 9: Type of displacement for all burials in study

Other evidence supports the idea that the actions in altering the skeleton were deliberate and careful so as to avoid disturbing the rest of the burial assemblage. In burial 67 at Gerza, the skull was placed upright before the body and a single cervical vertebra was found a short distance from its original location (Petrie, Wainwright, and MacKay 1912, 5, 8; Petrie, Wainwright, and MacKay 1910-1911). On the neck, a necklace of gold, iron, carnelian and agate was found in situ, uncannily undisturbed by the movement of the vertebra or the skull—unless it was placed there after the vertebra and skull had been removed. The rest of the burial goods were also undisturbed. Burials 540 and 712 from Naqada had undisturbed vessels placed near affected skeletons (Fig. 20) (Petrie and Quibell 1896, 1:31; Petrie and Quibell 1894-1895). In burial 845, in place of the skull was a bowl filled with small intact vessels and the skull was placed on top (Petrie and Quibell 1896, 1:30).

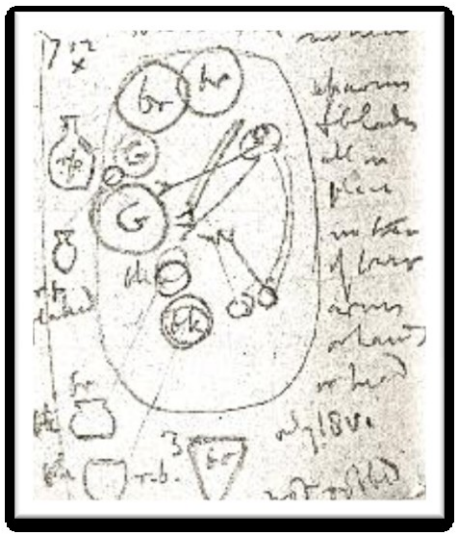

Fig. 20 Naqada Burial 712
(Petrie and Quibell 1894)
Courtesy of the Petrie Museum of Egyptian Archaeology, UCL

Other examples show bones that were moved within the burial and placed near undisturbed objects. The skull and lower arms of an individual were moved to one side of the burial, with upright and undisturbed vessels placed against them, in burial 315 at Naqada (Petrie and Quibell 1896, 1:30). The bones of the lower arms were moved in burial 1419 at Naqada, and were placed near undisturbed palettes and ivory objects, including a comb, a pin and two ivory tusks (Petrie and Quibell 1896, 1:28). In burial 733 from Naqada, the bones of the arms of an individual were displaced near the skull and the skull was turned upside down (Petrie and Quibell 1896, 1:22, LXXXII; Petrie and Quibell 1894-1895). Near the skull and arm bones were upright and intact vessels (Fig. 21). Stone vessels and beads were found undisturbed in burial T 5 at Naqada, which contained a minimum of six individuals with all the bones dispersed within the burial (Petrie and Quibell 1896, 1:19, 32, LXXXII; Petrie and Quibell 1894-1895). These examples suggest that the movement of the bones was conducted with sufficient care so as not to disturb objects in the burial. It may also, however, indicate that the objects were interred in the burial after the bones had been manipulated. In either scenario, the rearrangement of the bones in the burial was a careful and deliberate activity, as shown by the undisturbed objects surrounding the skeleton.

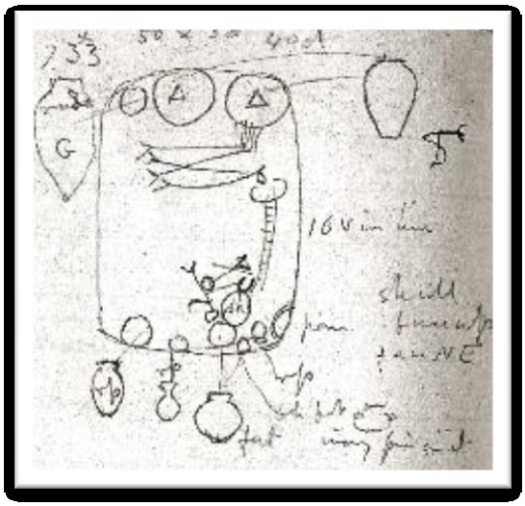

Fig. 21 Naqada Burial 733
(Petrie and Quibell 1894)
Courtesy of the Petrie Museum of Egyptian Archaeology, UCL

The evidence collected from Naqada, Gerza, Tell El Farkha and Adaima indicates that burial practices that manipulated the bones of the skeleton were present in a number of sites during the Predynastic Period. Though the practices appear to have been numerous, re-opening a burial and altering the arrangement of the bones was among the most frequently practiced funerary activity at these sites. The activity though was highly variable and the significance behind the actions of rearranging the bones may have differed from one burial space to another, as did the meaning behind removing bones from the grave. What can be said based on the evidence is that the skeleton, and sometimes the body, held a funerary value during Predynastic Egypt where altering it or fragmenting it was a legitimate expression of that belief.

Social Implications of Secondary Burials

Practices that manipulate the body have been documented in some cultures affecting specific segments of society, such as in Çatalhöyük in Turkey, where secondary burials were restricted to adults. It may be restricted to a certain age, sex or social standing (Andrews and Bello 2006, 23). It was not possible to ascertain the age and sex of all the individuals in this study and, therefore, there is no conclusive evidence. However, both males and females were documented with skeletal displacement at Adaima and Tell El Farkha. Three adult females and three adult males are recorded among the cases with displaced skeletal remains from Tell El Farkha, with only one other individual's sex being undetermined. At Adaima, two burials belonged to adult females and one to an adult male. Only four cases of child or infant burials were recorded at Naqada with displacement, 3 of which were interred with adults (Burials B62, 880 and 594) and one was buried alone (Burial 234). A single case of a child was documented at Gerza, in burial 171 and was interred with an adult. The adult presented evidence for skeletal displacement, but the child appears to have been unaffected with displacement as only a single tooth was found dislocated. From the data collected in this study, it appears that the practice of manipulating the body was not limited to a specific sex. The underrepresentation of children in the data may imply that it was more often conducted on adults, but too little evidence exists for any definitive statements.

The range of burials documented, from small pits to large and elaborate structures also indicates that the practice was not restricted to individuals of a certain socio-economic background. The burials in Cemetery T at Naqada and some of the tombs at Tell El Farkha indicate that individuals of higher social

standing were among those affected with the practice. While the basic pits recorded in the other graves at Naqada, Gerza, Tell El Farkha and Adaima attest to its presence among those with no significant social standing based on the size of the grave and the grave goods interred. Therefore, the evidence shows that the practice of manipulating the skeleton was not restricted to age, sex or wealth. The location of the burials with affected skeletal remains within the cemetery also suggests that they were not set apart or isolated from the other tombs (see Chapters 3, 4, 5 and 6). The integration of the burials in the cemetery indicates that the individuals who underwent such practices were not ostracized in the community and were afforded burials with grave goods. The practice, however, may have been restricted to some kind of social value, such as a religious or social affiliation, that has not left traces in the archaeological record.

These burial activities reveal a more complicated perception of death, where simply burying a person with their grave goods was no longer a sufficient reflection of their mortuary beliefs. Studies have shown that Predynastic graves can be perceived as reflecting individual identities and as spaces that mediate between memory and meaning (Stevenson 2007, 2009a). The burial space is viewed as a deliberate image that was made by the community to commemorate the deceased. In examining the burials as a space where funerary performances were conducted by the community, Alice Stevenson states: "By examining the choreography of bodies and artefacts within burial spaces, together with the material constituents of those spaces, it may be possible to identify strategies by which impressions of identity and the social world were staged by the survivors" (2007, 78). Clues into social identity and the role of funerary rituals may,

therefore, become apparent through burials in their function as final stages of performance conducted by the living members of society. It was the people attending the funeral who would have handled the body and the burial goods, and arranged them in the burial in a layout that held meaning to them (Stevenson 2007, 77). Although the layout of objects in a burial varies greatly, it has been observed that the body represents the center of the setting around which meanings are created (Stevenson 2007, 82). The different meanings and thoughts that are expressed in the arrangement of a burial are most likely the result of an improvisatory performance, which would account for the diversity of burial settings found during this period (Stevenson 2007, 84). Though the exact meanings ascribed to the layout of the grave goods and body remains unknown, the role of the community and the significance of human agency are emphasized in this approach. The rearrangement of the skeleton and grave goods was conducted by the members of the community and, therefore, reflects their understanding of death and burial.

David Wengrow argues that the burials with dismembered, or manipulated human remains in Predynastic Egypt, reflect the development of increasingly complex funerary beliefs (2009, 116–123). Wengrow believes that manipulating the body "…constituted broad parameters for a unique funerary realization of the deceased individual" (2009, 117). He finds that a distinctive social innovation is apparent in the configuration of the burial space, where not only are the objects organized to create a final image of the deceased, but also the bones or parts of the body of that individual (Wengrow 2009, 118). He further suggests "…the static, articulated body had become an inadequate framework for making a funerary

image commensurate with the social ties amassed by some individuals during life. Elaborate post-mortem treatments of the body, presumably accompanied by appropriate rituals, would have provided ever-larger spatial and temporal arenas for the construction of social memory" (Wengrow 2009, 123).

Whether the drying of the corpse was a deliberate act, as found in some funerary rituals, or accidental, such as a person dying far from the community cannot always be ascertained. The fact that the majority of burials in this study were minimally affected indicates that burials were more likely re-opened to alter the skeleton (Table 9). However, the same cannot be said of burials where the entire skeleton was found displaced, and which are classified in the database as total displacement. In those cases, it is possible that the deceased was buried as a skeleton. Even then, the bones and objects were manipulated into an arrangement that held significance to the community. If an attempt was made at reconstructing the skeleton in its correct anatomical alignment that in itself is telling of a desire to recreate the natural state of the body. Burial 206 from Gerza perfectly displays one such example. All the bones of the body were present in the burial, but slightly shifted out of place (Fig. 22) (Petrie, Wainwright, and MacKay 1912, 9; Petrie, Wainwright, and MacKay 1910-1911). More telling, both tibiae and fibulae were found in their correct position but inverted (Petrie, Wainwright, and MacKay 1912, 9; Petrie, Wainwright, and MacKay 1910-1911). Bones of the feet were scattered around the body. The burial was discovered intact and with a layer of undisturbed ceramic vessels laid on top of the body, further demonstrating that the arrangement of the bones in the burial was intended (Petrie, Wainwright, and MacKay 1912, 9; Petrie, Wainwright, and MacKay 1910-

1911). This example clearly exhibits a desire at reassembling the body in its anatomical arrangment and not dispersing the bones nor removing any from the grave, as found in other burials. It also shows that they could reconstruct a skeleton when they so wished.

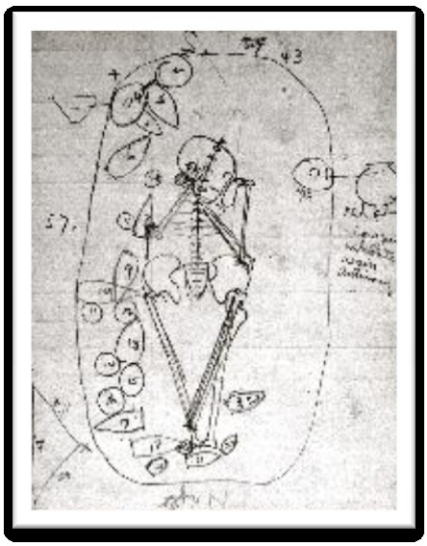

Fig. 22 Gerza Burial 206
(Petrie, Wainwright, and MacKay 1910)
Courtesy of the Petrie Museum of Egyptian Archaeology, UCL

Contemporary cultures that intentionally rid the body of its flesh prior its burial do so in a number of ways including, leaving it to dry outdoors in coffins, on platforms, on trees or interred in a grave that is later re-opened (Hertz 1960, 30). The provisional, or temporary, burial is with the intention of isolating the corpse from society to enable it to undergo the transformation that is expected to take place in its journey to the afterlife (Hertz 1960, 30). The disintegration of the body during this stage into a skeleton is visible evidence of the transition experienced by the deceased, and of the deceased being transformed into the same state as that of the ancestors and, therefore, is believed to be amongst them

in the afterlife (Hertz 1960, 61). The disintegration of the flesh signifies that its destruction in this world will enable its reconstruction in the next world (Hertz 1960, 46).

Perhaps the ritual of re-entering a burial and seeing the transformed state of the deceased was a needed validation for Predynastic society that death was a transition symbolized through the natural transformation of the body, as is found in its practice in contemporary cultures (Hertz 1960, 46). The disintegration of the body into a disconnected skeleton may have been embraced as a natural stage in the transformation of the deceased into a new identity. The transformation of the body may also have signified that the individual had joined the ancestors, with the bones symbolizing a collective representation of death, as found in some Neolithic burials (Croucher 2010, 9–10), and in the contemporary examples still practicing prolonged burial rites (Hertz 1960, 61).

Handling the bones would have placed the living in direct contact with their ancestors. Objects may have been moved at this stage or added to the setting to create a scene that holds sacred or significant meanings that were known to the community. To be able to come in direct contact with the bones of the deceased may also have allowed for a culture of bone circulation in the community. The community may have retained bones of the ancestors, which were kept as relics or venerated.

Various treatments of the body have been recorded in the Predynastic Period, among them are early attempts at wrapping and embalming the body (Crubezy, Janin, and Midant-Reynes 2002; Friedman 1998; Friedman 1997; Dougherty and Friedman 2008; Jones et al. 2014). Mummification eventually

prevailed as the preferred method to prepare the deceased for death and was practiced for the majority of ancient Egyptian history. However, in the absence of a dominant mortuary practice, the ancient Egyptians during the Predynastic Period appear to have been experimenting with multiple burial activities, which represented their various mortuary and funerary beliefs. The variability of the burial assemblages, evident from one burial to another, further attests to the flexibility of the mortuary practices from this period. The significance of the numerous rituals recorded during this time period may never be determined, but it seems that the Predynastic mortuary landscape was diverse and many practices were legitimately and acceptably practiced.

Deducing from the evidence, it appears that more time and effort were spent on the individuals whose body parts were retrieved from the burial or rearranged after the decomposition of the body. In modern ethnographic studies of funerary rituals that await the body to decompose into a skeleton, the additional time provided by the prolonged nature of the rite is used to ensure that the deceased is equipped with all that is necessary to successfully transition to the next stage, through practicing various rituals and preparing for a final feast (Hertz 1960, 53). Perhaps the additional time was also of benefit to the Predynastic communities when prolonged burial rites were practiced. They may have used that time to prepare elaborate grave goods to be interred with the deceased or performed rituals that guaranteed the safe passage of the deceased to the next life.

Wengrow further proposes that the practice of fragmenting the body in a burial ritual bears similarities to that of mummification. He finds that both

mortuary activities are attempts at transforming the body into an image, and that both prolong the period between death and burial (Wengrow 2009, 123).

> "…by transforming the body into an image – an explicit feature in many later styles of mummification – it made possible its replication and extension into wider chains of signification, which eventually came to include both human and divine subjects. In their ritual and social functions, then, these two practices have paradoxically similar potential and attributes. The adoption of mummification among the elite meant that a particular choice was made among possible ways of extending the period between death and burial, and treating the body as image and sign" (Wengrow 2009, 123).

He believes that burials where objects were integrated in the rearrangement of the body or skeleton display efforts in creating a final image of the deceased, "…a wide range of object types was integrated with the patterned deposition of human remains to form an overall image of the deceased within the grave" (Wengrow 2009, 117). By recreating a 'new realization of the deceased subject,' he explains, a new concept emerges of the person "…as transcending the physical boundaries of the skin, allowing relations of equivalence between internal objects (bones), objects worn on the body-surface (combs, ornaments, etc.), and objects that mediated the passage of substances between the body and other kinds of container (ceramic, woven and stone vessels)" (Wengrow 2009, 122). In that respect, the manipulation of the grave, with the rearrangement of the bones and/or the objects, may be perceived as an effort to recreate an image of the deceased. The body was seen as a subject that they could alter to reconstruct into an image that best represented the social significance of the deceased and the final memory they wished to hold of him. That reconfigured image embodied their

perception of death, just as in later times, the mummified body was the image that embodied their religious and funerary beliefs of death. The act of displacing skeletal remains, or manipulating the body, can therefore serve as the source for the conception of the objectification of the dead body into an image, as occurs in the mortuary practices of mummification. The extension of time between death and burial, which is present in the practices of manipulating skeletons and mummification, is also similar in the underlying timeframe of conducting such funerary activities. In that respect, mummification can be seen as the continuation of the practices of fragmenting the body, in its manipulation of the body to create an image that corresponds to their belief system and in the time frame set by such burial rites.

'Dismemberment' in Religious Texts and Their Origins

Numerous scholars have speculated regarding the relation between these burials and their potential association with the god Osiris as related in the Osiris Myth. According to the myth, Osiris was the king of Egypt, having inherited the throne from his father, the god of the Earth, Geb (Assmann 2005, 23). Unlike previous divine rulers, Osiris had a brother and a rival, Seth (Assmann 2005, 23). Osiris and Seth were brothers to Isis and Nephthys, with Isis being Osiris's wife. The cause behind Seth's actions is not certain. However, what is apparent is that Seth killed and dismembered Osiris's body, and scattered his body parts all across Egypt. Their sisters, Isis and Nephthys, collected the body parts and reassembled Osiris. After reassembling the body, Isis posthumously conceived Horus. Horus was considered the rightful heir to the unjustly murdered god, and was sheltered by Isis until he was of age to avenge his father's death. Horus eventually

contended with Seth, avenged his father's death, and embodied the justified ruler and successor. There are two accounts that relate the fate of Osiris's body and his killing by Seth. In one account, his body is hacked and scattered throughout Egypt, and in another he is drowned by Seth (Griffiths 1980, 22).

The prominent role of the myth in religious discourse and its sanctification of the dismemberment and death of a god, offers the possibility of dismemberment as a funerary practice that may have once been physically re-enacted. The Predynastic burials with displaced bones, torn bodies and individuals who appear to have been cut up would then be explained as the earliest practice of the Osirian death. It was even suggested that it was the presence of these practices that gave rise to the myth. Speculations of this nature, linking the Predynastic burials and Osiris, as an explanation for the evidence of manipulated skeletons, are tentatively contemplated by some scholars (Anthes 1959, 206; Anthes 1963, 78; Petrie, Wainwright, and MacKay 1912, 11–15; Friedman 2002, 329; Dougherty and Friedman 2008, 329; Crubezy, Janin, and Midant-Reynes 2002, 487), but are refuted by others (Bonnet 1971, 421-422; Griffiths 1980, 51-52).

Osiris remains a crucial deity to be considered in the ideas surrounding dismemberment and burial. Although the origins of Osiris, his cult centers, and functions as a god are obscure (Griffiths 1980, 44), the earliest textual mention of Osiris occurs in the 5th Dynasty in the Pyramid Texts of the pharaoh Unas (Griffiths 1980, 44; Eaton-Krauss 1987; Lorton 1985, 114). The vagueness of his beginnings is assumed to reflect a period where his roles and functions were still being formed (Griffiths 1981, 626). Scholars have varying opinions on whether

Osiris existed prior to his first written attestation. David Lorton believes that Osiris could not have existed for long before his first mention, "Thus, any discussions of the origins and function of Osiris ought to begin with the presumption that the divine concept is not much older than its earliest attestation" (1985, 114). Scholars who argue for the prehistoric existence of Osiris often do so by emphasizing the importance of his function as the god of the dead, and, therefore, his relevance during all periods. Lorton, however, believes that attributing the functions of Osiris, as known from later texts, is mistakenly projecting complex characteristics of the god onto the past (1985, 114). Other scholars speculate that the origins of the god and his myth must have had prehistoric roots, and attempt to attribute architectural developments in the 3rd and 4th Dynasties as proof of his existence (Griffiths 1980, 7, 41–44). While the existence of Osiris, or an early form of him, may have dated to the Predynastic Period, there is no evidence yet to support that claim.

Thus far, the first mention of Osiris that has been documented is in the Pyramid Texts inscribed in the pyramid of the king Unas of the 5th Dynasty relating the Osiris Myth (Griffiths 1980, 187). Pyramid Texts are the first funerary rituals that are found inscribed on sarcophagi and the walls of the funerary monuments of kings beginning with Unas (Allen 2001, 95). The texts are composed of spells that assist the deceased in the afterlife in a number of ways and include offering rituals, resurrection rituals and spells to aid in the transition of the deceased to the next life (Allen 2001, 96-97). The spells are individually chosen for funerary monument. Unas's pyramid contains one of the largest compilations, with 236 spells recorded. The total number of spells in Pyramid

Texts found in funerary contexts is nearly 1000 (Allen 2001, 95). Studies show that the contents of the spells evolved in their use and changes are observable in their composition from one king's reign to another in the form of variants of a spell (Stewart 2014, 113). It is assumed that some spells were added, eliminated or emphasized in each funerary monument based on the relevance of its content to that specific time period (Stewart 2014, 150). The texts were initially restricted to royal monuments, but after the First Intermediate Period, they began to appear on the tomb walls of non-royal burials (Allen 2001, 95). The Pyramid Texts provide the first example of the deceased being identified with Osiris. Prior to the spread of the texts to non-royal individuals, this identification was restricted to royalty (Allen 2001, 97).

The Osiris Myth, which features prominently in the Pyramid Texts, is related in a non-sequential narrative and evolves from the time of its emergence to the end of the Old Kingdom (Stewart 2014, 202). Each funerary monument has different PT spells that recount various aspects of the story of the death of Osiris. The myth may have existed earlier on in an oral form (S. Ikram, personal communication). The more common form of the myth that is available in most modern literature is, in fact, a Greek rewriting of the myth compiled by Diodorus Siculus and Plutarch, who visited Egypt in 60 B.C. (Griffiths 1948, 83; Assmann 2005, 23). In order to make the myth more accessible, they edited its arrangement to provide it with a fluid and sequential narrative. Their renditions are, however, criticized for imbuing the ancient Egyptian deities with Greek qualities and attributes by basing them on ancient Greek gods (Griffiths 1948, 84; Assmann 2005, 23).

The Myth of Osiris is recounted in funerary texts, where the deceased identifies with the god in order to attain salvation. It is about the legitimate ritual and funerary practices that enable a successful rebirth in the afterlife. The emphasis is on the deceased's body being whole and complete in order to successfully progress to the afterlife. For example, spell PT 687 states,

"Behold, the King is at the head of the gods and is provided as a god, his bones are knit together as Osiris; the gods do obeisance when meeting the King just as the gods do obeisance when meeting the rising of Re when he ascends from the horizon" (Faulkner 1969, 296).

The myth's purpose is primarily to emphasize the importance of the body being whole in order to attain salvation as told through the death of Osiris. A plea made on behalf of the deceased in spell PT 676 states, "Do for him what you did for his brother Osiris on that day of putting the bones in order, of making good the soles, and of travelling the causeway" (Faulkner 1969, 290).

In a sense, the myth acts as a divine guideline of the necessary components of funerary rituals for a successful rebirth. Horus, the dutiful son, has ritual duties towards his deceased father that he must fulfill, as apparent in spell PT 355 where Osiris asks Horus to come and tend to him, "You should come to me, you should come to me, you should come to me, Horus who tends his father Osiris" (Stewart 2014, 57; Faulkner 1969, 113).

Isis and Nephthys, in their role as sisters, and Isis as a wife, are portrayed as the mythic prototypes for mourning by bearing the duties of attending to the body, restoring its senses and resurrecting the deceased (Stewart 2014, 61). Spell PT 259 reveals the deceased's need for Isis and Nephthys to mourn him/her as

they did Osiris, "It is the sister of NN, the Lady of Pe, who cries out for him and the two attendants (Isis and Nephthys) who mourned for him having mourned Osiris" (Stewart 2014, 61). The myth, therefore, is primarily about the importance of the body being whole and intact, like that of Osiris, and of the duties that befall the family of the deceased in tending to him.

The offensiveness of the act of dismemberment, as suffered by Osiris, is apparent in the myth. The actual dismemberment of Osiris and his death are omitted or vaguely alluded to in all versions of the myth (Stewart 2014, 87). The original Egyptian version of the myth relates the story through a set of disconnected scenes (Assmann 2005, 24). The opening scene of the myth begins with the dismembered body of Osiris having already been killed and hacked by Seth (Assmann 2005, 24). The actual killing of Osiris is circumvented by relating the story from the point after that event.

The Funerary Role of 'Dismemberment' as Linked to the Osiris Myth

The death of Osiris was an offensive act, and is vaguely mentioned in the text, but its importance to the story was crucial. In commenting on the opening scene of the myth with Osiris's dismembered body, Assmann states, "This scene is the common theme of a large corpus of texts, which do not actually describe it but rather presuppose it as the trigger for various actions whose aim is to cope with this catastrophe" (Assmann 2005, 24). In contrast to the vague mention of Osiris's death in the spells of the Pyramid Texts, the search for his body, its reassembly, and the rituals afforded to him after his death are elaborately recounted in numerous spells (Assmann 2005, 25; Stewart 2014, 63, 69, 138). It is these spells,

which explain the necessary rituals to be performed on the deceased, which are of importance and not the death itself.

The death of Osiris, while an abhorrent event, is crucial to the myth for allowing the rest of the events of the story to unfold. It is because of that death, that the gathering and joining of the body, and the mourning and the resurrecting of the god could commence. In avoiding the mention and any elaboration of Osiris's gruesome death, the purpose of the myth reveals itself to be the events that proceed after it, and not the act itself. The myth's funerary role is in providing the deceased with the possibility of resurrection and salvation, and not in perpetuating the death or the dismemberment of Osiris. Jan Assmann suggests that the death of Osiris and his dismemberment is needed for the central puprose of the myth in relating the restorative acts and the cure for the condition of death (Assmann 1989, 138). He goes on to state,

> "The rejoining of the limbs of Osiris, found only after a long search, became the prototype for the "overcoming" of death and furnished the mythical precedent for embalment. Embalment and mummification, in the light of the myth of Osiris, are equated with the restoration of life to the body, which had by no means to be ritually dismembered beforehand, since its lifelessness alone was mythically interpreted as dismemberment. Dismemberment is thus a symbol for the disintegration of a living entity and a mythical image for the condition of death iteself" (Assmann 1989, 138).

The murder and dismemberment of Osiris were not events that were protrayed favourably in the myth, nor could an individual wish to emulate them. Instead, these acts stand for all that needs to be remedied and redressed in order for salvation to take place. In emulating Osiris, the deceased hopes to be whole

again, not dismembered. The myth is, therefore, very much linked to the practices of mummification and bears no relation to the Predynastic burials in question. The myth is first attested during the 5th Dynasty, a time when mummification was practiced on royal mummies. The appearance of the myth at this time may have served to underscore the effectivines of mummification in providing passage to the afterlife (Ikram and Dodson 1998, 110, 112), Its narrative emphasizes the importance of a whole and complete body; a mortuary concept that could not have existed prior to the discovery of mummification.

The "shunning of dismemberment" became a part of religious discourse, repeatedly found in funerary literature from its first appearance in the form of Pyramid Texts during the Old Kingdom, to the Coffin Texts of the Middle Kingdom, and the Book of the Dead in the New Kingdom. There, dismemberment is referred to as the worst possible fate for a person, who wishes to be properly interred and to enter the afterlife through emphasizing the importance of being whole (see spells PT 606, 676, 687 in Faulkner 1969, 250, 289, 296). Not only was the body susceptible to the danger of dismemberment, hindering its successful rebirth, but also the spirit could be dismembered during the journey to the afterlife. It is due to this explicit shunning of dismemberment and its dire affects on the deceased's fate that some scholars are inclined to believe that an act of manipulating or displacing bones can only be a harmful act, an accident, or a disturbance. However, the funerary/literary concept of the "shunning of dismemberment" emerged as a byproduct of the culture mummification. Jan Assmann defines the role of "dismemberment" in funerary texts as follows,

"As a literary motif, the concept of dismemberment clearly appears in an exclusively negative context: it is either one of the dangers in the netherworld, which must be avoided at all cost, or a metaphorical illustration of the initial state of want, which the manifold resuscitation rites of the funerary cult take up in the sense of a *restitutio ad integrum*." (Assmann 1989, 138).

"Dismemberment" is relayed as an abstract concept, which embodies the harm resulting from the lack of mummification and preservation. It is also perceived as the initial state experienced by any dead body, which elicits the need for mummification. A body in ancient Egypt was believed to undergo an involuntary stage of metaphorical dismemberment, which occurred immediately upon death (Assmann 2005, 23–31). According to Assmann, death was believed to be a state of dismemberment, dissolving, isolation and disintegration, even for a mummified body (Assmann 2005, 31). Even a natural death was believed to be metaphorically dismemberment (Assmann 2005, 31). Mummification was posed as the solution to this state of want and the remedy to the natural dismemberment that was thought to have taken place upon death. Perhaps an awareness existed that in the absence of mummification, the body disintegrated into disconnected bones. The state of the body turning into a skeleton may have been the dismemberment that they believed to be an intrinsic and uncontrollable part of death. This was a realistic fear, and one that they sought to remedy.

Some funerary spells verbally reassembled the body, for example spell 7 in the Coffin Texts: "My head is (attached) to me, my arms are (attached) to me, my legs are (attached) to me" (Nyord 2009, 483). Such spells were recited to remedy the uncontrollable dismemberment that afflicted the body upon death (Assmann

2005, 34-38). By reassembling the conceptual dismemberment using these spells and making the body whole again, the deceased could hope to be resurrected in the afterlife. The efficacy of the literary role of the word "dismemberment", therefore, lies in emphasizing the beneficial effects of mummification and their significance.

Although at first glance the "dismemberment" mentioned in those spells may appear to be related to the burial practices conducted during the Predynastic Period, a closer inspection of the references to "dismemberment" in funerary texts reveals that its purpose was to highlight the importance of mummification. Until further evidence is discovered, the religious significance attributed to the actions of displacing or dismembering a body during the Predynastic Period cannot be linked to the Myth of Osiris or the concept of "dismemberment" as relayed in later funerary texts.

Conclusions

The evidence collected in this study strongly suggests that burial practices that displaced skeletal remains actually existed during the Predynastic Period, although this claim has been disputed (Bonnet 1971; Griffiths 1980). The practices were possibly funerary rituals that were carried out with the intention of commemorating the deceased. This can be speculated based on the respect afforded the displaced bones noted by some excavators (Midant-Reynes et al. 1996, 96; Wrobel 2001, 12; Midant-Reynes and Buchez 2002, 77), the caution apparent in manipulating the bones as seen from the evidence, and the interpretation of these rearranged skeletal assemblages as an image that represented the deceased (Wengrow 2009, 123). Retaining a part of the skeleton

to be kept in the community was a practice that also may have been present – although, thus far, no physical evidence from Egypt yet exists to support this hypothesis. The diversity of mortuary practices found during this time is evident in the numerous examples that were documented in multiple sites all across Egypt, which include decapitation, dismemberment of corpses, removal and burial of singular elements, such as skulls, early attempts at embalming, scalping, rearrangement of skeletal remains and traces of an undefined activity that left cut marks on the head and neck (Dougherty and Friedman 2008, 309, 324–325, 329, 482; Dougherty 2010, 7; Crubezy, Janin, and Midant-Reynes 2002, 456, 476, 480-483; Debowska-Ludwin 2010a; Friedman 1997; Jones et al. 2014). It is uncertain whether the practice of manipulating the skeleton or body originated in Egypt, or perhaps was transferred from another culture. Trade was conducted during the Predynastic Period with various distant cultures, such as Ethiopia, Nubia, and Palestine for sought after commodities, some of which were present in these graves such as ivory, gold and beads of varying material (Stevenson 2009b, 4; Cialowicz 2001, 63, 64; Wengrow 2009, 86). Perhaps the burial practices that manipulated the body were borrowed from other cultures as well. Similar burial practices were documented in ancient sites in Italy, Greece, Cyprus and in Turkey and the Levant, with evidence for the rearrangment of the skeleton and retrieval of bones, which is found in Egypt (Talalay 2002; Andrews and Bello 2006; Skeates 1999; Cullen 1999; Triantaphyllou 2008; Lorentz 2010).

However, the practice may just as likely have begun in Egypt. Prior to mummification, funerary beliefs could only be expressed on a dried or decomposing body, or a skeleton as a form for the treatment of the deceased for death. These burials may then be seen as the earliest efforts of the ancient

Egyptians in manipulating the body to prepare it for its journey to the afterlife in the absence of other alternatives, such as mummification. A symbolic or religious perception of a dead body may have existed that is not known to us today and which they expressed in the alteration of bones or the manipulation of bodies.

The fact that the presence of the practice is limited in each cemetery is not necessarily peculiar, or indicative of it being a harmful act that was only carried out as punishment. At the height of mummification, not all people could hope to be mummified upon death due to it being a cost restrictive practice, and the majority were buried in other ways, which we know little about today (Baines and Lacovara 2002). People who were not mummified were not necessarily irreligious or ostracized from the society. The practice of awaiting the body to dry or decompose is not costly, but is time consuming. Perhaps the additional investment of time and effort needed is what prevented it from being a popular mortuary practice that was adopted by more individuals. It may have also been restricted to individuals of a certain religious or social affiliation, where the additional efforts were conducted in reverence of certain individuals. A suggestion can also be made that the manipulation of the skeleton was a practice that was conducted on disturbed burials. Perhaps when graves were discovered violated by looters, a ritual was conducted to re-seal the burial. The shifted bones may have been left where they were, or were rearranged as a part of a ritual. That, however, is not a plausible explanation in the burials where the grave goods were found in situ, except if they endowed the deceased with goods when the original one's were stolen.

The burials investigated in this study all date to the Naqada Period. At Naqada, Gerza and Adaima, some burials date to the Naqada II Period, but at Tell

El Farkha they all date to the Naqada III Period. During the Naqada II Period, an intensified geographical expansion of the Upper Egyptian culture is observable in the archaeological record (Andelkovic 2011, 29). Sites as far north as the Delta began to exhibit material goods of the southern Naqada culture attesting to its spread across Egypt. Perhaps the practice of manipulating the skeleton originated in the south as well and only began to appear in the northern sites, such as Tell El Farkha, during the Naqada III Period. This statement, however, can only be speculated in the absence of burials that date prior to the Naqada III Period at Tell El Farkha until further evidence is found from Lower Egyptian cemeteries.

While much remains unknown about the mortuary practices of the Predynastic Period, the evidence we do have for the treatment of the body and skeleton, emphasizes a progressive complexity, which was perhaps developing alongside the socio-economic advancements that were present during this time period. These burials may be perceived as evidence for the origins of complex funerary beliefs, which continued to develop throughout the rest of ancient Egyptian history.

Bibliography

Albert, J.P., E. Crubezy, and B. Midant-Reynes. 2005. "L'archéologie Du Sacrifice Humain. Problèmes et Hypothèses." In *Le Sacrifice Humain En Ègypte Ancienne et Ailleurs*, 6:20–33. Soleb.

Allen, J. 2001. "Pyramid Texts." Edited by D. Redford. *The Oxford Encyclopedia of Ancient Egypt*. Oxford: Oxford University Press.

Allen, J., and P. Manuelian. 2005. *The Ancient Egyptian Pyramid Texts*. Leiden: Brill.

Ambroise, D., and C. Perlès. 1972. "Étude de La Position Des Ossements D'un Squelette Néolithique (sépulture Collective de La Chausée-Tirancourt, Somme)." *L'Anthropologie* 76 (5-6): 535–44.

Andelkovic, B. 2011. "Political Organization of Egypt in the Predynastic Period." In *Before the Pyramids: The Origins of Egyptian Civilization*, edited by E. Teeter, 25–32. Chicago: The University of Chicago.

Andrews, P., and S. Bello. 2006. "Pattern of Human Burial Practices." In *Social Archaeology of Funerary Remains*, edited by R. Gowland and C. Knusel, 14–29. Oxford: Oxbow Books.

Anthes, R. 1954. "The Original Meaning of M'hrw." *Journal of Near Eastern Studies* 13 (1): 21–51.

———. 1959. "Egyptian Theology in the Third Millennium B.C." *Journal of Near Eastern Studies* 18 (3): 169–212.

———. 1963. "Affinity and Difference between Egyptian and Greek Sculpture and Thought in the Seventh and Sixth Centuries B.C." *Proceedings of the American Philosophical Society* 107 (1): 60–81.

Assmann, J. 1973. "Das Grab Des Basa." *Archäologische Veröffentlichungen* 6: 121–25.

———. 1989. "Death and Initiation in the Funerary Religion of Ancient Egypt." In *Religion and Philosophy in Ancient Egypt, Yale Egyptological Studies 3*, edited by W. Simpson, 135–59. New Haven: Yale Egyptological Seminar Department of Near Eastern Languages and Civilizations The Graduate School, Yale University.

———. 2005. *Death and Salvation in Ancient Egypt*. Ithaca: Cornell University Press.

Baines, J., and P. Lacovara. 2002. “Burial and the Dead in Ancient Egyptian Society: Respect, Formalism, Neglect.” *Journal of Social Archaeology* 2: 5–36.

Bard, K. 1994. “The Egyptian Predynastic: A Review of the Evidence.” *Journal of Field Archaeology* 21 (3): 265–88.

———. 2008. *An Introduction to the Archaeology of Ancient Egypt*. Malden: Blackwell Publishing.

Bartell, M. 1994. “Palaeopathology of Cranial Remains from Predynastic Naqada, Egypt”. MA Thesis, University of Alberta, Canada.

Bass, W. 1997. “Outdoor Decomposition Rates in Tennessee.” In *Forensic Taphonomy: The Postmortem Fate of Human Remains*, edited by W. Haglund and M.H. Sorg, 181–86. London: CRC Press.

Baumgartel, E. 1970. *Petrie’s Naqada Excavations: A Supplement*. London: Quartich.

Beckett, J., and J. Robb. 2006. “Neolithic Burial Taphonomy, Ritual and Interpretation in Britain and Ireland: A Review.” In *Social Archaeology of Funerary Remains*, edited by R. Gowland and C. Knusel, 57–80. Oxford: Oxbow Books.

Bell, C. 1992. *Ritual Theory, Ritual Practice*. New York: Oxford University Press.

Bienert, H. 1991. “Skull Cult in the Prehistoric Near East.” *Journal of Prehistoric Religion* 5: 9–23.

Bloch, M. 1986. *From Blessing to Violence: History and Ideology in the Circumcision Ritual of the Merina of Madagascar*. Cambridge: Cambridge University Press.

———. 1988. “Death and the Concept of Person.” In *On the Meaning of Death: Essays on Mortuary Rituals and Eschatological Beliefs*, edited by S. Cederroth, C. Corlin, and J. Lindstrom, 11–30. Uppsala: Acta Universitatis Upsaliensis.

Bloch, M., and J.P. Parry. 1982. *Death and the Regeneration of Life*. Cambridge: Cambridge University Press.

Boddington, A., and Janaway, eds. 1987. *Death, Decay and Reconstruction. Approaches to Archaeology and Forensic Science.* Manchester: Manchester University Press.

Bonnet, H. 1971. *Reallexikon Der Ägyptischen Religionsgeschichte*. New York: W. De Gruyter.

Bowie, F. 2000. *The Anthropology of Religion: An Introduction*. Malden: Blackwell Publishing.

Bruck, J. 1995. "A Place for the Dead: The Role of Human Remains in the Late Bronze Age." *Proceedings of the Prehistoric Society* 61: 245–77.

———. , ed. 2001. "Body Metaphors and Technologies of Transformation in the English Middle and Late Bronze Age." In *Bronze Age Landscapes: Tradition and Transformation*, 149–60. Oxford: Oxbow Books.

———. 2006. "Death, Exchange and Reproduction in the British Bronze Age." *European Journal of Archaeology* 9 (1): 73–101.

Burton, R.F. 1964. "Notes on Scalping." *Anthropological Review* 2: 49–52.

Busby, C. 1997. "Permeable and Partible Persons: A Comparative Analysis of Gender and Body in South India and Melanesia." *The Journal of the Royal Anthropological Institute* 3 (2): 261–78.

Cauvin, J. 1994. *The Birth of the Gods and the Origins of Agriculture: New Studies in Archaeology*. Cambridge: Cambridge University Press.

Chapman, J. 2000. *Fragmentation in Archaeology*. London: Routledge.

Chenier, A. 2009. "Bones, People and Communities: Tensions Between Individuals and Corporate Identities in Secondary Burial Rituals." *The Canadian Student Journal of Anthropology* 21: 27–40.

Chlodnicki, M., K. Cialowicz, and A. Maczynska, eds. 2012. *Tell El-Farkha I. Excavations 1998-2011*. Krakow: Poznan Archaeological Museum.

Chodnicki, M., K. Cialowicz, and J. Debowska-Ludwin. 2012. "Eastern Kom at Tell El-Farkha. Excavations in 2006-2007." *Studies in African Achaeology* 11: 41–64.

Chodnicki, M., R. Fattovich, and S. Salvatori. 1992. “The Italian Archaeological Mission of the CSRL-Venice to the Eastern Nile Delta: A Preliminary Report of the 1987-1988 Field Seasons.” *Cahier de Recherches de l’Institut de Papyrologie et d’Égyptologie de Lille* 14: 45–62.

Cialowicz, K. 2001. “Predynastic Period.” Edited by D. Redford. *The Oxford Encyclopedia of Ancient Egypt*. Oxford: Oxford University Press.

Croucher, Karina. 2010. “Bodies in Pieces in the Neolithic Near East.” In *Body Parts and Bodies Whole: Changing Relations and Meanings*, edited by Katharina Rebay-Salisbury, Marie Louise Sorensen, and Jessica Hughes, 6–19. Oxford and Oakville: Oxbow Books.

Crowford Payne, J. 1987. “Appendix to Naqada Excavations Supplement.” *The Journal of Egyptian Archaeology* 73: 181–89.

Crubezy, E. 1998. “La Nécropole d’Adaima: Une Premiere Synthese.” *Archéo-Nil* 8: 33–66.

Crubezy, E., S. Duchesne, and B. Midant-Reynes. 2008. “The Predynastic Cemetery At Adaima (Upper Egypt). General Presentation and Implication for the Populations of Predynastic Egypt.” In *Proceedings of the International Conference "Origin of the State, Predynastic and Early Dynastic Egypt Toulouse (France), 5th-8th September 2005*, edited by B. Midant-Reynes, Y. Tristant, J. Rowland, and S. Hendrickx, 289–310. Leuven: Peeters.

Crubezy, E., T. Janin, and B. Midant-Reynes. 2002. *Adaima 2: La Nécropole Prédynastique, Fouilles de L’Institut Français d’Archéologie Orientale*. Cairo: Institut francais d’archeologie orientale.

Crubezy, E., and B. Midant-Reynes. 2000. “Les Sacrifices Humains à L’époque Prédynastique: L’apport de La Nécropole d’Adaima.” *Archéo-Nil* 10: 21–40.

Cullen, T. 1999. “Scattered Human Bones at Franchthi Cave, Greece: Remnants of Ritual or Refuse?” In *MELETEMATA Studies in Aegean Archaeology Presented to Malcom Wiener as He Enters His 65th Year*, edited by P. Betancourt, R. Karageorghis, W. Laffineur, and D. Niemeier, 165–71. Liège: University of Liège.

David, R. 2002. *Religion and Magic in Ancient Egypt*. London: Penguin.

Davis, W. 1983. “Cemetery T and Naqada.” *Mitteilungen Des Deutschen Archaologischen Instituts Abteilung Kairo* 39: 17–28.

Debowska-Ludwin, J. 2010a. “Multiple and Disordered Burials as Special Funerary Practices in Early Egypt. Examples from Tell El-Farkha.” *Folia Orientalia* 47: 371–78.

———. 2010b. “Polish Excavations at Tell El-Farkha (Ghazala) in the Nile Delta Preliminary Report 2008-2010.” *Archeologia* 61: 109–170.

———. 2010c. “Tell El-Farkha (2009 Season): Grave No. 100.” *Studies in Ancient Art and Civilization* 14: 23–42.

———. 2012a. “The Cemetery.” In *Tell El Farkha I*, edited by M. Chlodnicki, K. Cialowicz, and A. Maczynska, 53–75. Krakow: Poznan Archaeological Museum.

———. 2010d. “The Necropolis at Tell El-Farkha Reconsidered.” *Recherches Archeologiques* NS 2: 5–20.

———. 2012b. “Traces of Early Egyptian Burial Rituals in Proto-And Early Dynastic Graves From Tell El Farkha.” In *Studies in Ancient Art and Civilization*, edited by E. Papuci-Wladyka, 16:39–48. Krakow: Jagiellonian University.

———. 2008. “Burial Custom and Political Status of Local Societies - A View from Tell El Farkha.” In *Proceedings of the International Conference "Origin of the State, Predynastic and Early Dynastic Egypt Toulouse (France), 5th-8th September 2005*, edited by B. Midant-Reynes, Y. Tristant, J. Rowland, and S. Hendrickx, 1107–1117. Leuven: Peeters.

———. 2009. “The Catalogue of Graves from Tell El-Farkha.” *Recherches Archeologiques* NS 1: 458–86.

———. 2014. “The Picture of Naqadan-Lower Egyptian Transition Reconstructed on the Basis of Sepulchral Data.” In *The Nile Delta as a Centre of Cultural Interactions Between Upper Egypt and the Southern Levant in the 4th Millennium BC*, edited by A. Maczynska, 105–117. Poland: Poznan Archaeological Museum.

Dirkmaat, D.C., and L.A. Sienicki. 1995. “Taphonomy in the Northeast Woodlands: Four Cases from Western Pennsylvania.” *Proceedings of the 47th Annual Meeting of the American Academy of Forensic Sciences* 1 (10).

Dougherty, S. 2010. “Death in Fragments: Piecing Together the Skeletons of HK6.” *Nekhen News* 22: 6–7.

Dougherty, S., and R. Friedman. 2008. “Sacred or Mundane: Scalping and Decapitation at Predynastic Hierakonpolis.” In *Proceedings of the International Conference "Origin of the State, Predynastic and Early Dynastic Egypt Toulouse (France), 5th-8th September 2005*, edited by B. Midant-Reynes and Y. Tristant, 309–335. Leuven: Peeters.

Dreyer, G. 2011. “Tomb U-J: A Royal Burial of Dynasty 0 At Abydos.” In *Before the Pyramids: The Origins of Egyptian Civilization*, edited by E. Teeter, 127–136. Chicago: The University of Chicago.

Duchesne, S., L. Staniaskzek, and E. Crubezy. 2005. “Anthropologie et Pratiques Funéraires. Le Site d’Adaïma.” *Dossiers d’Archéologie* 307: 38–43.

Duday, H. 1978. “Archéologie Funéraire et Anthropologie. Application Des Relevés et de L’étude Ostéologiques à L’interprétation de Quelques Sépultures Pré-et Protohistoriques Du Midi de La France.” *Cahiers d’Anthropologie Paris* 1: 55–101.

———. 1987. “Nouvelles Observations Sur La Décomposition Des Corps Dans Un Espace Libre.” In *Anthropologie Physique et Archéologie: Méthode D’étude Des Sépultures. Comptes Rendus de La Table Ronde de La RCP 742*, 6–13. France: Saint-Germain en Laye.

———. 2006. “L’archéothanatologie Ou L’archéologie de La Mort.” In *Social Archaeology of Funerary Remains*, 30–56. Great Britain: Oxbow Books.

Duday, H., P. Courtaud, E. Crubezy, P. Sellier, and A.M. Tillier. 1990. “L’anthropologie de ‘Terrain’: Reconnaissance et Interpretation Des Gestes Funeraires.” *Bulletins et Memoires de La Societe d’Anthropologie de Paris* 2 (3): 24–49.

Duday, H., and C. Masset, eds. 1987. *Anthropologie Physique et Archéologie*. Paris: C.N.R.S.

Eaton-Krauss, M. 1987. “The Earliest Representation of Osiris?” *Varia Aegyptiaca* 3: 233–36.

Eyre, C. 2002. *The Cannibal Hymn: A Cultural and Literary Study*. Great Britain: Liverpool University Press.

Fagan, B.M. 2001. *In the Beginning: An Introduction to Archaeology*. New Jersey: Prentice Hall.

Faulkner, R. 1969. *The Ancient Egyptian Pyramid Texts*. Oxford: Clarendon Press.

———. 1973a. *The Ancient Egyptian Coffin Texts*. Vol. V. I. Warminster: Aris and Phillips Ltd.

———. 1973b. *The Ancient Egyptian Coffin Texts*. Vol. V. II. Warminster: Aris and Phillips Ltd.

———. 1973c. *The Ancient Egyptian Coffin Texts*. Vol. V. III. Warminster: Aris and Phillips Ltd.

Fowler, C. 2010. "Pattern and Diversity in the Early Neolithic Mortuary Practices of Britain and Ireland: Contexualising the Treatment of the Dead." *Documenta Praehistorica* 37: 1–22.

Friedman, R. 1997. "Excavations in the Predynastic Cemetery HK43." *Nekhen News* 9: 2–3.

———. 1998. "More Mummies: The 1998 Season at HK43." *Nekhen News* 10: 4–6.

———. 2002. "The Predynastic Cemetery at HK43: Excavations in 2002." *Nekhen News* 14: 9–10.

———. 2004. "Farewell to HK43." *Nekhen News* 16: 4–5.

———. 2008. "The Cemeteries of Hierakonpolis." *Archéo-Nil* 18 (March): 9–29.

Friedman, R., A. Maish, A. Fahmy, J. Darnell, and E. Johnson. 1999. "Preliminary Report on Field Work at Hierakonpolis: 1996-1998." *Journal of the American Research Center in Egypt* 36: 1–35.

Friedman, R., E. Watrall, J. Jones, A. Fahmy, W. Van Neer, and V. Linseele. 2002. "Excavations at Hierakonpolis." *Archéo-Nil* 12: 55–68.

Griffiths, J. 1948. "Diodorus Siculus and the Myth of Osiris." *Man* 48: 83–84.

———. 1980. *The Origins of Osiris and His Cult*. Leiden: Brill.

———. 1981. "Osiris." Edited by W. Helck and E. Otto. *Lexicon Der Agyptologie 4*. Weisbaden: Harrassowitz.

Haglund, W., and M.H. Sorg, eds. 1997. *Forensic Taphonomy: The Postmortem Fate of Human Remains*. Florida: CRC Press.

Hallam, E., and J. Hockey. 2001. *Death, Memory and Material Culture*. Oxford: Berg.

Hare, T. 1999. *Remembering Osiris: Number, Gender, And the Word in Ancient Egyptian Representational Systems*. Stanford: Stanford University Press.

Hassan, F. 2001. "Naqada." Edited by D. Redford. *The Oxford Encyclopedia of Ancient Egypt*. Oxford: Oxford University Press.

———. 2004. “Between Man and Goddess: The Fear of Nothingness and Dismemberment.” In *Proceedings of the International Conference “Origin of the State, Predynastic and Early Dynastic Egypt” Krakow, 28th August-1st September 2002*, 779–99. Leuven: Peeters.

Hendrickx, S. 2001. “Sequence Dating and Predynastic Chronology.” In *Before the Pyramids: The Origins of Egyptian Civilization*, edited by E. Teeter, 15–16. Chicago: Oriental Institute of the University of Chicago.

———. 2011. “Iconography of the Predynastic and Early Dynastic Periods.” In *Before the Pyramids: The Origins of Egyptian Civilization*, edited by E. Teeter, 75–82. Chicago: The University of Chicago.

Hermann, A. 1956. “Zergliedern Und Zusammenfügen: Religionsgeschichtliches Zur Mumifizierung.” *Numen* 3 (2): 81–96.

Hertz, R. 1907. “Contribution À Une Étude Sur La Représentation Collective de La Mort.” *L’Année Sociologique* 10: 49–137.

———. 1960. “A Contribution to the Study of the Collective Representation of Death.” In *Death and the Right Hand*, edited by R. Needham and C. Needham, 29–86. New York: Free Press.

Ikram, S. 2003. *Death and Burial in Ancient Egypt*. Harlow: Longman.

Ikram, S., and A. Dodson. 1998. *The Mummy in Ancient Egypt*. Cairo: The American University in Cairo Press.

Janaway, R.C., S.L. Percival, and A.S. Wilson. 2009. “Decomposition of Human Remains.” In *Microbiology and Aging: Clinical Manifestations*, edited by S.L. Percival, 313–334. New York: Springer.

Jelinek, J. 1993. “Dismembering, Filleting, and Evisceration of Human Bodies in a Bronze Age Site in Moravia, Czech Republic.” *Anthropologie* 31: 99–114.

Johnson, A., and N. Lovell. 1994. “Biological Differentiation at Predynastic Naqada, Egypt: An Analysis of Dental Morphological Traits.” *American Journal of Physical Anthropology* 93 (4): 427–433.

Jones, J. 2002. “Towards Mummification: New Evidence for Early Developments.” *Egyptian Archaeology* 21: 5–7.

Jones, J., T. Higham, R. Oldfield, T. O’Connor, and S. Buckley. 2014. “Evidence for Prehistoric Origins of Egyptian Mummification in Late Neolithic Burials.” *PLoS ONE (The Public Library of Science)* 9 (8).

Kaiser, W. 1958. “Zur Vorgeschichtlichen Bedeutung von Hierakonpolis.” *Mitteilungen Des Deutschen Archaologischen Instituts Abteilung Kairo* 16: 183–192.

Kenyon, K. 1957. *Digging Up Jericho*. London: Ernest Benn.

Kohler, C. 2011. “The Rise of the Egyptian State.” In *Before the Pyramids: The Origins of Egyptian Civilization*, edited by E. Teeter, 123–126. Chicago: The University of Chicago.

Kreinath, J., J. Snoek, A. Maria, and M. Stausberg. 2008. *Theorizing Ritual*. Edited by J. Kreinath, J. Snoek, and M. Stausberg. Leiden: Brill.

Larson, P. 2001. “Austronesian Mortuary Ritual in History: Transformations of Secondary Burial (Famadihana) in Highland Madagascar.” *Ethnohistory* 48 (1-2): 123–155.

Larsson, A. 2003. “Secondary Burial Practices in the Middle Neolithic-Causes and Consequences.” *Current Swedish Archaeology* 11: 153–170.

Leclerc, J. 1990. “La Notion de Sépulture.” *Bulletin de La Société d’Anthropologie de Paris* 2 (3-4): 13–18.

Lorentz, K. 2010. “Parts to a Whole: Manipulation of the Body in Prehistoric Eastern Mediterranean.” In *Body Parts and Bodies Whole: Changing Relations and Meanings*, 20–29. Oxford and Oakville: Oxbow Books.

Lorton, D. 1977. “The Treatment of Criminals in Ancient Egypt.” *Journal of the Economic and Social History of the Orient* 20: 2–64.

———. 1985. “Considerations on the Origin and Name of Osiris.” *Varia Aegyptiaca* 1: 113–26.

Lythgoe, A.M. 1965. *The Predynastic Cemetery N 7000 Nag-Ed-Der*. Edited by D. Dunham. Vol. IV. Berkeley and Los Angeles: University of California Publications.

Maish, A. 2003. "Not Just Another Cut Throat." *Nekhen News* 15: 26.

Metcalf, P., and R. Huntington. 1979. *Celebrations of Death: The Anthropology of Mortuary Ritual*. Cambridge: Cambridge University Press.

Midant-Reynes, B. 2000a. "The Naqada Period (c. 4000-3200 BC)." In *The Oxford History of Ancient Egypt*, edited by I. Shaw, 44–60. Oxford: Oxford University Press.

———. 2000b. *The Prehistory of Egypt from the First Egyptians to the First Pharaohs*. Oxford: Blackwell.

Midant-Reynes, B., and N. Buchez. 2002. *Adaima 1: Économie et Habitat*. Cairo: Institut français d'archéologie orientale.

Midant-Reynes, B., N. Buchez, E. Crubezy, and T. Janin. 1996. "The Predynastic Site of Adaima: Settlement and Cemetery." In *Aspects of Early Egypt*, edited by J. Spencer, 93–97. London: British Museum Press.

De Morgan, J.M. 1897. *Recherches Sur Les Origines de l'Egypte: L'âge de La Pierre et Les Métaux*. Vol. 2. Paris.

Morris, R. 1995. "All Made Up: Performance Theory and the New Anthropology of Sex and Gender." *Annual Review of Anthropology* 24: 567–92.

Mortimer, J. 1905. *Forty Years' Researches in British and Saxon Burial Mounds of East Yorkshire*. London: A. Brown and Sons.

Muhlestein, K. 2008. "Royal Executions: Evidence Bearing on the Subject of Sanctioned Killing in the Middle Kingdom." *Journal of the Economic and Social History of the Orient* 51 (2): 181–208.

Murphey, E., ed. 2008. *Deviant Burial in the Archaeological Record*. Oxford: Oxbow.

Murray, M. 1914. “Evidence for the Custom of Killing the King in Ancient Egypt.” *Man* 14: 17–23.

———. 1956. “Burial Customs and Beliefs in the Hereafter Predynastic Egypt.” *Journal of Egyptian Archaeology* 42: 86–96.

Nyord, Rune. 2009. *Breathing Flesh: Conceptions of the Body in the Ancient Egyptian Coffin Texts*. Copenhagen: Museum of Tasculanum Press.

O’Connor, D. 2009. *Abydos: Egypt’s First Pharaohs and the Cult of Osiris*. London: Thames and Hudson.

Payne, J.C. 1993. *Catalogue of the Predynastic Egyptian Collection in the Ashmolean Museum*. Oxford: Clarendon Press.

Peet, E. 1914. *The Cemeteries of Abydos Part II 1911-1912*. London: The Egypt Exploration Society.

Petrie, W.M.F., and J. Quibell. 1896. *Naqada and Ballas 1895*. Vol. 1. London: Quaritch.

Petrie, W.M.F. 1899. “Sequences in Prehistoric Remains.” *The Journal of the Anthropological Institute of Great Britain and Ireland* 29 (3): 295–301.

Petrie, W.M.F., G. Wainwright, and E. MacKay. 1912. *The Labryinth of Gerzeh and Mazghuneh*. London: University College London.

Petrie, W.M.F., and J. Quibell. 1894 - 1895. “The Naqada and Ballas Excavations.” Unpublished field notebook. London: The Petrie Museum of Egyptian Archaeology, UCL.

Petrie, W.M.F., and G. Wainwright, and E. MacKay. 1910 - 1911.”The Gerza and Mazghuneh Excavations.” Unpublished field notebook. London: The Petrie Museum of Egyptian Archaeology, UCL.

Picardo, N. 2004. “Dealing with Decapitation Diachronically.” *Nekhen News* 16: 13–14.

———. 2007. “Semantic Homicide and the So-Called Reserve Heads: The Theme of Decapitation in Egyptian Funerary Religion and Some Implications for the Old Kingdom.” *Journal of the American Research Center in Egypt* 43: 221–52.

Quibell, J., and F. Green. 1902. *Hierakonpolis II*. London: Bernard Quaritch.

Randall-MacIver, D., and A.C. Mace. 1902. *El Amrah and Abydos 1899-1901*. London: Egypt Exploration Fund.

Roksandic, M. 2002. "Position of Skeletal Remains as a Key to Understanding Mortuary Behavior." *Advances in Forensic Taphonomy: Method, Theory, and Archaeological Perspectives*, 99–117.

Roth, A.M. 1992. "The Pss-Kf and the Opening of the Mouth Ceremony: A Ritual of Birth and Rebirth." *Journal of Egyptian Archaeology* 78: 113–47.

———. 1993. "Fingers, Stars and the Opening of the Mouth: The Nature and Function of the Ntrwj-Blades." *Journal of Egyptian Archaeology* 79: 57–79.

Sauzade, G., and H. Duday.. 1984. "L'Abri de Sanguinouse, tombe collective du Chalcolithique ancien (commune de la Roque-sur-Pernes, Vaucluse)." *Congrès préhistorique de France. Compte Rendu de la 21ème session, Montauban-Cahors 1979*, 280-297.

Savage, H. S. 1995. "Descent, Power, and Competition in Predynastic Egypt: Mortuary Evidence from Cemetery N7000 at Naga Ed Der." Arizona: Arizona State University.

Sellier, P. 1985. "Observations Sur La Position Des Corps Dans Le Cimetières de Mehrgarh (Pakistan)." In *Méthode d'Étude Des Sépultures*, 39–43. France: Saint-Germain en Laye.

Shanks, M., and C. Tilley. 1984. "Ideology, Symbolic Power and Ritual Communication: A Reinterpretation of Neolithic Mortuary Practices." In *Neolithic Studies: A Review of Some Current Research*, edited by R. Bradley and J. Gardiner, 125–154. BAR British Series 133. Oxford: British Archaeological Reports.

Shaw, I., ed. 2000. *The Oxford History of Ancient Egypt*. Oxford: Oxford University Press.

Shay, T. 1985. "Differentiated Treatment of Deviancy at Death as Revealed in Anthropological and Archaeological Material." *Journal of Anthropological Archaeology* 4: 221–241.

Skeates, R. 1999. "Unveiling Inequality: Social Life and Social Change in the Mesolithic and Early Neolithic of East-Central Italy." In *Social Dynamics of the Prehistoric Central*

Mediterranean, edited by R. Tykot, J. Morter, and J. Robb, 15–45. London: Accordia Specialist Studies on the Mediterranean 3.

Sofaer, J. 2006. *The Body as Material Culture: A Theoretical Osteoarchaeology*. Cambridge: Cambridge University Press.

Spencer, A.J. 1982. *Death in Ancient Egypt*. Harmondsworth: Penguin.

Spencer, P. 2001. "Petrie and the Discovery of Earliest Egypt." In *Before the Pyramids: The Origins of Egyptian Civilization*, edited by E. Teeter, 17–24. Chicago: Oriental Institute of the University of Chicago.

Stevenson, A. 2009c. "Predynastic Burials." *UCLA Encyclopedia of Egyptology*. Los Angeles. http://digital2.library.ucla.edu/viewItem.do?ark=21198/zz001nf6jk.

———. 2009a. "Social Relationships in Predynastic Burials." *Journal of Egyptian Archaeology* 95: 175–192.

———. 2009b. *The Predynastic Egyptian Cemetery of El Gerzeh: Social Identities and Mortuary Practices*. Leuven: Peeters.

———. 2006. *Gerzeh, An Egyptian Cemetery Shortly Before History*. London: Golden House.

———. 2007. "The Aesthetics of Predynastic Egyptian Burial: Funerary Performances in the Fourth Millennium BC." *Archaeological Review from Cambridge* 22 (1): 76–92.

———. 2015. "Telling Times: Time and Ritual in the Realization of the Early Egyptian State." *Cambridge Archaeological Journal* 25 (1): 145–161.

Stewart, David. 2014. "The Myth of Osiris in the Ancient Egyptian Pyramid Texts". PhD Thesis, Melbourne, Australia: Monash University.

Talalay, L.E. 2002. "Heady Business: Skulls, Heads, and Decapitation in Neolithic Anatolia and Greece." *Journal of Mediterranean Archaeology* 17: 139–163.

Tamorri, V. 2011. "Manipulated Corpses in Predynastic Egyptian Tombs: Deviant or Normative Practices." In *Proceedings of the Twelfth Annual Symposium*, 200–209. Durham.

Taylor, J. 2001. *Death and the Afterlife in Ancient Egypt*. Chicago.

Teeter, E., ed. 2011. *Before the Pyramids: The Origins of Egyptian Civilization*. Chicago: The University of Chicago Press.

Triantaphyllou, S. 2008. "Living with the Dead: A Re-Consideration of Mortuary Practices in the Greek Neolithic." In *Escaping the Labyrinth: The Cretan Neolithic in Context*, edited by V. Isaakidou and P. Tomkins, 8:136–54. Sheffield Studies in Aegean Archaeology. University of Sheffield: Oxbow Books.

Turner, V. 1969. *The Ritual Process: Structure and Anti-Structure*. Chicago: Aldine Publishing Company.

Ubelaker, D.H. 1974. *Reconstruction of Demographic Profiles from Ossuary Skeletal Samples*. Washington D.C.: Smithsonian Institution Press.

Venbrux, E. 2007. "Robert Hertz' Seminal Essay and Mortuary Rites in the Pacific Region." *Le Journal de La Société Des Océanistes* 124: 5–10.

Wengrow, D. 2009. *The Archaeology of Early Egypt: Social Transformations in North-East Africa 10,000 to 2650 BC*. Cambridge: Cambridge University Press.

Wengrow, D., and J. Baines. 2004. "Images, Human Bodies and the Ritual Construction of Memory in Late Predynastic Egypt." In *Proceedings of the International Conference "Origins of the State, Predynastic and Early Dynastic Egypt" Krakow 28th August - 1st September 2002*, edited by S. Hendrickx, R. Friedman, K. Cialowicz, and M. Chlodnicki, 1081–1113. Leuven: Peeters.

Wilkinson, T. 1999. *Early Dynastic Egypt*. London: Routledge.

Woodward, A., J. Hunter, R. Ixer, M. Maltby, P. Potts, P. Webb, J. Watson, and M. Jones. 2005. "Ritual in Some Early Bronze Age Grave Goods." *Archaeological Journal* 162: 31–64.

Wright, G. 1979. "The Egyptian Sparagmos." *Mitteilungen Des Deutschen Archaologischen Instituts Abteilung Kairo* 35: 345–358.

———. 1988. "The Severed Head in Earliest Neolithic Times." *Journal of Prehistoric Religion* 2: 51–56.

Wrobel, G. 2001. “HK43: Deeds of the Disturbers.” *Nekhen News* 13: 11–12.